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44-45

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COMPUTER EXPRESS

FIRST NEWS • FIRST REVIEWS • BEST BUYS • YOUR WEEKLY GUIDE

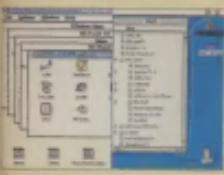
AMIGA



LA SCALA

The Amiga best seller has been upgraded

ATARI



THE NEXT ST

Will it be the STPC or the STMAC? Find out...

GAMES



NEBULUS 2

Is this the worst sequel ever made?

YOU CAN'T GO TO THE SHOW!

ECES: Europe's biggest computer leisure expo is closed to the public – page 4

FRAUD: bosses blamed

Computer crime: is it on the increase?
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* Jake and Elroy have always got into trouble in the past, and now they can do so on your computer with *The Blues Brothers* from Titus

It's a beautiful game Bob!

Rock 'till you drop in *The Blues Brothers*, the computer game.

In the game you have to set up the perfect conditions for the *Blues Brothers*' concert. The only thing is, you have to get Jake and Elroy there.

The *Blues Brothers* game features five scrolling levels of chase and confusion in such varied surroundings as department stores, prison cells and sewers.

The music was one of the highlights of the movie, and the game too features a computerised rendition of the original *Blues Brothers* soundtrack.

Other features include over 200 different screens of graphics and multi-directional scrolling.

The game which is set to priced will be out for the ST, Amiga and PC later this year. ■

Advent of the slim drive



* Could a floppy drive be any thinner than this? The new, svelte MF35SE from Mitsubishi is designed for notebook and laptop PCs.

Computers look set to become even smaller thanks to a new Mitsubishi-designed floppy drive which is barely larger than the disks you put in it.

The MF35SE is a 1.44MB 3.5-inch drive designed for use with notebook and laptop PCs. It is just

14.0mm high, which is less than the diameter of a 5p coin, but it conforms to the width standard of notebook computers (8mm) and weighs 195g.

Not yet commercially available, the MF35SE will, according to the company, cost no more than a standard 3.5-inch disk drive. ■

Printer price slashed

NEC has reduced the price of its 24-pin wide carriage P70 printer by £100 to £599.

The P70 can print over 136 columns, and up to A3 paper size. Speeds range from 100 character per second (cps) for letter quality to 300 cps for draft quality.

The printer comes with 10 resident fonts and Windows 3.0 driver software.

If you want to get hold of one at this amazingly low price, contact NEC on 081-993-8111. ■

Bargains for the ST

Frontier Software has reduced the price of most of its Atari ST-related products, some by up to 45 per cent.

These include the Xtra-RAM ST and Xtra-RAM ST memory upgrades and the Forget-Me-Click II cartridge.

The two different RAM cards are for the ST and ST4 series of machines, respectively, and can be installed by the user in about an hour. Some soldering may be needed for certain STs newer than, however.

The unpopulated Xtra-RAM ST card has been reduced from £54.99 to £29.99, while the 0.5MB, version 1.0 card is £39.99 instead of £59.99. The 2MB

version is now reduced from £99.99 to £159.99.

Forget-Me-Click II is a cartridge that plugs into an ST or ST4 and automatically sets the system and keyboard clocks as soon as the computer is turned on. Usually both clocks have to be set manually.

The cartridge also has a pass through port so that other cartridges can be plugged in 'off the top' of it; other similar cartridges fit up to the port completely, the company claims.

The Forget-Me-Click II is now priced at £24.99 instead of £25.99.

For further information, call Frontier Software on 0423 567140 or 0423 528577. ■

Europe's biggest computer-related expo runs DOORS SHUT

News broke late last week concerning the forthcoming European Computer Entertainment Show (ECE) which was to be held at Earl's Court 2 between 6 and 8 September.

The show, which last year attracted thousands of members of the public, and was heralded as a major success, is this year to be a trade only event.

CHANGE OF PLAN

The previous plan was to have two halls in the venue. One was to be trade only, while the doors of the other were to be opened to members of the general public.

Exhibitors expected to attend included Commodore, Atari, Virgin Games, Ocean, US Gold, Domark and Virgin Mastertronic (soon to become Sega Europe) amongst many others both great and small. However, it now appears that the consumer side of the venture has been abandoned.

We attempted to contact a representative of EMAP exhibitions in order to discover exactly why the public side of the show was to be ditched. EMAP at the time of going to press we had still not received any response.

MIXED RECEPTION

The reaction from the computer industry, however, has been mixed with some companies welcoming a trade only exhibition, which others feel saddened by the situation.



* Stay away from the European Computer Entertainment Show in September, at Earl's Court 2. Unlike last year's show when it was open to the public, this year's exhibition is strictly for trade only

The organisers are attempting to warn members of the public away from the show with the aid of radio advertising in the London area. However, it is still expected that many members of the public will show up as the pre-booked tickets were available. ■

Trading places

Traders, from Linel is a trading game which involves the usual buying and selling of commodities in order to make a profit. While doing this you can play other sub-games, including playing roulette and betting robots.

Four players always play the game, whether they are computer controlled or, with the addition of a four player joystick, human.

Games players like being puz- zled it seems, and Linel is counting on this for its release of Tit, its new puzzle game.

While a metal ball rolls around a maze, you have to move the tiles so that the ball crosses the finishing line within the time limit. Numerous obstacles get in the way of the ball's



* Live the life of Gordon Geikko by wheeling and dealing on Traders

progress, including beer mugs and progress, including beer mugs and progress, including beer mugs and

progress, including beer mugs and progress, including beer mugs and progress, including beer mugs and

EXPRESS...

Maurice Hamlin, the MD of Lancashire-based software house, Hamlin International was arrested at his home in Chorley on 30 July and charged with drug-trafficking offences relating to £5 million worth of cocaine.

...SNIPPET



* End of level guardians appear in Galaxian, which is new on the shoot-em-up front

Fast scroller

Adding its name to the streams of shoot-em-up battles to get into your disk drive is Electronic Zoo's Centaur.

It claims to be the fastest scrolling game to date (don't they all?) and features five different levels, bullets or weapons, a special two player mode and hugs and level guardians, as shown above.

Centaur will be released on 10 September for the Amiga, ST and PC, priced at £25.99. ■

into trouble as show goes trade only

ON PUBLIC

WHAT THE EXHIBITORS THINK ...

News of the change in aspect of the European Computer Entertainment Show came as a shock to many companies who were to participate.

We spoke to a number of major companies to assess their reaction.

Andrew Wright of Virgin Games: "I'm really quite upset on behalf of the industry. We didn't want to take two stands, one in the trade area and one for the public, and I think that this was a common attitude. So, at the moment everything is on 48-hour hold awaiting a decision as to whether we will stand".

Andrew Charkiewski of US Gold: "We are very saddened by the

decision. It doesn't change our stance. We wanted a trade only show but at this late stage we will have to consider our position. We will be showing our wares at the Gloucester hotel rather than Biff's Court."

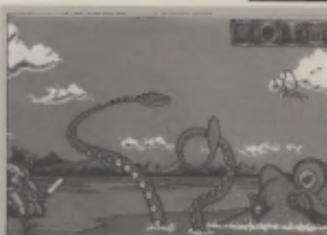
Peter Walker of Atari: "We are disappointed that the show is not to go ahead. It actually makes us look towards the Computer Shopper show. We think it's important to have a show for the consumer, so this decision adds us. But the timing of the show is critical. September is too far away from Christmas for it to be effective".

Kathy Sumner of Commodore: "It is very unfortunate that some of our associates and competitors

don't want to show their support for a show which the industry needs. We've even started building our stand. We're a little bit aggravated".

Clare Edgely of Domstar: "We were only going to the trade side anyway. Although putting together a big stand with loads of arcade games would be nice for the public, it really won't stay with them long enough for the impact to carry over to Christmas".

Nick Alexander of Virgin Music/Musictron (soon to be Sepia Europe): "A consumer show is largely an irrelevance to us. We have not been too bad about the situation. The consumer show is a bit of an anachronism".



* *Son of Zeus* features over 40 different fantasy monsters, each with its own sound effect, and the gods comment on the action with sampled speech which guides you on your way

This will grab you!

Heracles, hero of the Son of Zeus, has to free the gods trapped by the evil Kronos on Mount Olympus. He must find 12 pieces of the special stone that holds the key to the god's power, giving them the strength to destroy Kronos.

As Heracles, you live the land of Olympia in first-person perspective, and will be able to battle the monsters that will be encountered with a variety of weapons and different physical manoeuvres.

Son of Zeus will be available from Electronic Zoo on 30 October for the ST and Amiga.

Electronic Zoo will also release *The Magic Garden*, a cute arcade adventure, on 30 September, while *Under Pressure*, a scrolling arcade action game, will be available on 30 November. ■



* PC Format will be launched on 26 September

Get ready for PC Format

If you've got a PC compatible or are interested in finding out what they are capable of then you should check out Future Publishing's new magazine PC Format, the modern guide to personal leisure computing, which hits the newsstands on 26 September.

PC Format is aimed at all aspects of leisure and entertainment computing for the PC, including

graphics, music, games, shareware and much more.

Every issue comes never mounted with either a single 3.5-inch disk or two 5.25-inch disks packed with 700K of game demos and shareware utilities.

The 3.5-inch version costs £2.95 and the 5.25, £3.25.

In the first issue of PC Format you will find out everything you need to know about soundcards and why

you should want one, and you'll be able to get to grips with playable demos of MD 20, Super Falcon and Speedball 2.

You'll also find our very own PC columnist, Paul Rigby, offering the benefits of his considerable experience.

The launch issue is out on 26 September and subsequent issues will be in all good newsagents on the fourth Thursday of every month. ■

The great escape?

Two new versions of the Mass Breakout game software for the PC are to be launched.

PC Communications is releasing Mass Breakout 2 and Mass Breakout Network. The former enables simultaneous linking of one IBM PS/2 compatible PC with up to four host mainframes or PCs via modems.

Using an on-line networking system, the user can display all four conferences at the same time, or can 'hotkey' between the four.

The program also runs in the background and can be invoked when required. Included in the package is the Z-Modem file transfer protocol, and it fully implemented VT220 terminal emulation.

Mass Breakout Network, as its name suggests, a LAN (Local Area Network) based system, is an aim to do away with the need for shared modems on LANs. Price for this package is an on-line basis.

Mass Breakout 2 will cost you £59. For more information call PC Communications on 0898 851111. ■

Supermouse

Logitech has developed a mouse especially for working with three dimensional graphics that can also be used to input voice commands.

The mouse works by receiving ultrasonic signals from a small transducer unit plugged into the computer. This means that you can pick up the mouse as well as moving it around on the flat plane of a table top, while dodging their formidable fire power.

Space 1800 is the computer version of the role playing game. As well as exploring planets, players can also look around a number of cities on Earth, including London and New York. In their travels players will encounter 500 different characters which can be either traded with or fought, depending on what's appropriate.

Eye of the Storm is set on Jupiter. It features paid 3D graphics with light source illumination, and Gouraud shading, to make objects appear smoother. There are a number of missions to complete, against the hostile interplanetary traders, mercenaries and other rogue characters.



* Amiga owners can soon become Khan the Barbarian and battle the evil wizards in Death Bringer

and Gouraud shading, to make objects appear smoother. There are a number of missions to complete, against the hostile interplanetary traders, mercenaries and other rogue characters.

Twilight 2000 is set in the aftermath of War III. You and your squadron have to deal with the political and heretical problems created by the war, by setting up alliances and military bases. ■

EXPRESS...

Sixty three per cent of Tottenham Hotspur's shareholders have accepted the 75p a share offer from Terry Venables and Amazmed chairman Alan Sugar.

...SNIPPER

NIBBLES

Royal approval

Berkshire-based Software Products International has been honoured by King Juan Carlos of Spain at a ceremony at the Palace of the Zarzuela in Madrid. The honour was in recognition of SPI's position as the leading business software company in Spain.

Managing director John Brown presented to King with a copy of the company's multi-function software Open Access 8.0 which was voted 'Product of the Year' by a leading Spanish PC magazine. Apparently, Juan Carlos immediately filled in his registration form!

Look, no leads!

Relay/3290 VTAM 4.1 is an enhanced software-only package from Comshare International which enables PC users to use VTAM-based mainframe applications without resorting to leads, emulation boards or other hardware. It provides full-screen emulation of IBM 3277, 3278 and 3279 model 5A mainframe terminals.

Prices are £6,759 for the VM VTAM version and £19,313 for the MVS VTAM version.

Next Text

Adobe has announced the launch of its Illustrator colour illustration software for the Next computer. It includes features only available on the Next version - a precise function and the facility to use colour or grayscale TIFF images as templates for artwork. It costs £590.

Adobe has also released TeachType for the Next. This is a £199 text manipulation program which can perform such tasks as precise kerning, scaling, rotation and case conversion. You can contact them on 0795 831881.

New fonts

Four new Adobe Type Set packages designed specifically for business users will be available from 1 September. Each set contains 11 to 18 Adobe Type 1 fonts. Adobe Type Manager and a 32 page guide on how to make the most of your fonts. Available for Apple Macintosh computers and PCs running Microsoft Windows, the Adobe Type Set For Business packages will cost between £39 and £49.

Tense, nervous headache?

Brain machines are devices for relieving stress and inducing a state of tranquillity by subjecting the user to all encompassing audio-visual experience.

At £99.95, the Inventiv's PFM is a new low-cost brain machine offering facilities usually found on machines costing around £600, according to UK distributor the London Health Centre. It features 25 pre-set programs, but you can also devise up to 16 of your own customised light and sound shows.

Contact The London Health Centre, 13 Canfield Lock, London NW1 5AF. ■



* Not something to while away the time under the sun lamp, but a hi-tech solution to stress.

Established software boss warns small games publishers:

"MERGE OR FACE FINANCIAL RUIN"

Audiogenic's managing director Peter Colver has warned other small publishing companies that they must look for merges or face financial collapse within the next year.

This follows rumours in the computer industry that Audiogenic, the company responsible for such games as *Call of Duty* and *Graham Gooch's World Class Cricket*, is running into financial trouble.

Colver, whose company has advertised in the trade press calling for merger or consortium proposals, reckons small companies cannot survive the current impoverished state of the games industry.

"The problem is that there are too many small companies releasing too many mediocre products," Colver told *Espresso*. "It comes down to who's marketing the products best as opposed to who's making

the best products."

He believes that mergers will allow companies like Audiogenic to concentrate on producing the games, allowing someone else to handle the marketing. He also believes that a consortium of small companies with one shared marketing division is a possible answer.

"I think that many other companies which have been around for a while will be thinking along the same lines," said Colver.

The Audiogenic move follows that of Hewson, now 21st Century Entertainments, which advertised in a national Sunday newspaper for partners in a joint venture. It was shortly after this that Hewson ceased trading. Audiogenic is hoping to avoid the same fate if its proposed plans come to fruition. ■



* Audiogenic believes it needs to merge if it is to carry on producing games like *Graham Gooch's World Class Cricket*.

All you need is love (and bananas)

Top Banana is an environmentally aware Antichromes game from new publishing house, Reka.

It features sprites sampled from television and video - the company believe this is the first time this technique has been used. Also modelled is three-way parallel scrolling, real time sampled music and customisation facilities to enable players to create their own sub-games by altering sprites. There's even a tree T-shirt thrower in.

The game itself is an ecologically-aware cutting. You are armed with just one powerful weapon, love. With this you have to save the world from the consequences of pollution.

You have to neutralise sun, stop floods and liberate the hearts of lost which have been stolen up by the evil corporations. There are four 'worlds' to be saved.

The Max crew is also working on a new game which makes use of artificial intelligence and neural networking. According to



* In Top Banana you can save the world with your powerful weapon - love!

Robert Peppett of the company, "It will change the way that people design games."

The price for Top Banana is £25.99. It will be released later this month, and both ST and Amiga versions are also in the planning stages. ■

SHOOT FROM THE LIP

"We still fundamentally believe that a consumer show is needed."

Neil Wood, SEMA's exhibitions director talking about plans for the CES, just days before the announcement was made that it would be a trade only show.

"So soon after the liberation of many countries throughout Eastern Europe, there is one type of European citizen who is far from free - he is your jaystick."

Spectravideo press release for the company's new wire-free Infrared joystick, the Freedom Stick.

"The Gravits speaks a word and the word is quality... it sticks to the table top like electrons to the nucleus of an inert element."

Yet another Spectravideo press release for a joystick which does not, in fact, talk, and neither does it cause a nuclear reaction if you put it off your table top. What are these people on? ■

Word from Tokyo - new Mac portable for under \$2,000

SONY TO BUILD MAC NOTEBOOK

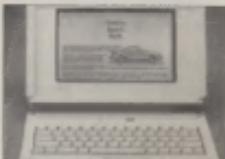
Apple Computer has once again become embroiled in a confusing situation regarding new launches.

Sony is to manufacture Apple's forthcoming Macintosh notebook, according to Japan's leading financial newspaper *The Nikkei*.

WHAT AGREEMENT?

It appears that a Sony spokesman confirmed that the highly Japanese electronics company will be manufacturing the notebook in the very near future. Apple has denied that any such deal has been struck.

The *Nikkei* report claims that the notebook will weigh between four and seven pounds and will cost around \$1,850. Sony will produce the machine as an OEM (original equipment manufacturer) and it will be sold solely under the Apple brand name. The machine is expected to go into production before the end of this year.



Confusion reigns over the Mac notebook - has Sony got a deal to manufacture it or not?

Sony already has close links with Apple, providing various parts for the American company, including floppy disk drives.

Sony also has the necessary production facil-

ties to manufacture small computers, so adapting to produce the new Macintosh notebook would be a fairly simple step.

At the moment the Outbound notebook, a portable which can be used as a stand-alone device and can then 'dock' with desktop Macs, is the only such machine to be recognized by Apple.

REALLY CRUCIAL

The Sony statement, which has still not been confirmed as coming from an official, follows another endorsement for Apple, as one of its own executives has been reported as saying that IBM was crucial to the future of Apple.

To reply to a question posed about the relationship between the two companies, and specifically what would happen if the recent joint venture was to fail, Ian Overy, Apple's Vice president said: "I wouldn't like to think..."



* Do your accounts in 3-D with the new version of *Maple* which has many new functions and full colour 3-D graphics

Simple algebra

Design engineers can be saved the drudgery of having to work out loads of complicated algebraic calculations thanks to the latest upgrade of *Maple* from Waterloo Maple Software.

Version 5.0 features many new functions, including full colour 3-D graphics and a new, easier-to-use graphical user interface (GUI).

According to the company you can now make the program perform any of over 2,000 general purpose and specialised mathematical functions using simple commands in a fully interactive environment.

Maple is PC compatible. Prices vary according to platform, with the 386 version costing £595.

Visual imagery

Golden Image has launched a revamped version of its hand scanner for the Amiga ST and Amiga.

The Golden Image MARK II hand scanner comes with upgraded versions of Touch-Up, the accompanying software. The Amiga version now features a 'skew' tool and a new scanning utility which enables you to use the scanner while you are still in another program.

Touch Up for the Atari now includes a 'colours' as gray feature. Grey scales are better than dithered grays, which use combinations of black dots to produce the impression of gray, as they do not distort image-dropping programming.

The MARK II Hand Scanners are available directly from Golden Image next month. Software upgrades for existing users are £15, while new users will have to pay in the region of £185. Telephone: 081-382 1122, ext.

New dimension to role playing

Siegenmaster offers fantasy role-playing enthusiasts the chance to pit their wits against goblins, trolls, elves and other assorted baddies all in glorious 3-D isometric graphics.

The game, from Virtue Publishing, involves you leading a party of up to 16 warriors to complete 100 tasks and ultimately overthrow your enemies' evil lord. This includes laying siege to 12 castles.

Siegenmaster will be available for the ST and Amiga at £25.99 from late September. ■



Animated 3-D graphics come to fantasy role-playing in Siegenmaster

AST considers Emerald Isle

AST Research is set to announce details of a new European plant to supply the company's PCs to the whole of Europe.

At the moment Ireland looks the likeliest location as it has 'excellent facilities as well as a good supply of experienced staff,' says William Hau, the company's marketing manager.

AST Research already has manufacturing facilities in California, Hong Kong and Taiwan and this latest news demonstrates its determination to establish a sound user base in Europe. ■

Relive those golden moments...

With the increasing popularity of such videos as 25 Years of Match of the Day and 101 Greatest Goals, it was inevitable that someone would soon come up with a computer version.

Golden Goals is to be a series of Public Domain disks containing the best, most exciting and funniest goals scored on Kick Off 2. The brainchild of David Danson, *Golden Goals* will rely on Kick Off players sending in their favourite goals for possible inclusion on the disks. *Siwick* intends to have the first disk available by mid-October.

Densix has big plans for the future of the series, including *Golden Discs*. Should any Public Domain libraries would like to stock the disks, or if you want to send in some of your own favourite goals, you should contact David Danson at 3 Gleeson Park, Chelmsford, Essex, CM1.



* Kick Off players send off your favourite goals and they may be included in *Golden Goals*

Pulling faces

Matsushita has developed a computer system that could one day print a 3D facial contour.

The PC-based face pulling system produces 3D graphics of the human face which can be manipulated in a wide variety of ways. For example, it could zap the face of a baby to that of a 75-year-old man, or predict the appearance of an unborn child by merging the faces of its parents.

More serious uses would be producing identical pictures for the police or in pathology.

The current system is a prototype, but Matsushita reckons that the final model will be relatively low cost as it is based on an ordinary PC. ■

EXPRESS...

NeXT Computers has announced an 86 per cent increase in profits for the second quarter of 1991.

...SNIPPET



* Virtual Reality doesn't have to be all space suits and gourmets...

Comfy VR

Australia is not famous for the development of virtual reality, however, one man is seeking to change this.

David Hebe has come up a "new form of VR". Hebe plans to do away with the heavy suits and gauntlets normally associated with Cyberspace. His idea is to use transponders attached to the body, relaying signals in and from a central processor.

According to Hebe, this is a "more comfortable" way of achieving a computer-based Nirvana. Also, using transponders which do not have all the work of the translation of movement from body, via cloth, to the processor, eases the work of the main computer.

Transponders also cut down on cabling which, in the form of fibre optics, can interfere with movement and lead to a less than totally virtual experience.

To market this new idea Hebe has set up a company called Alternative Computer Systems (ACS) and hopes to take on the rest of the world, showing that the antiquated is as much on the cutting edge as the Orient and occident. ■

TOMORROW'S CUTTING EDGE

What's the next step in the evolution of computing? Find out here, right now, on this page...

Faster chip off the block

A chip with 10 times the processing power of most commercially available processors is being developed in Northern Ireland.

The digital signal processing (DSP) chip is capable of performing 250 calculations per second and comes courtesy of the Institute of Development Board of Northern Ireland.

Scientists at the IDB are claiming that the new technology enables them to produce circuits which can achieve up to 100 million operations per second.

Uses for the chip, which is a complementary metal oxide semiconductor (CMOS) Infrared Impulse Response (IR) chip include applications in high definition television, aerospace and radar among others.

Its ability to make use of digital rather than analogue techniques for wiring apparently makes it more capable of handling high frequencies than standard processors.

The basis of the chip's fantastic ability rests on a new technique for recursive calculations. This is a system whereby the result of one calculation is required in continue with the next.

Scientists at Bellist made a leap of imagination which led them to the conclusion that the whole need of a calculation was not required for this. Intermediate results could be passed on and used in subsequent additions, multiplications and subtractions. The final results are manipulated using the "redundant number system".

The Bellist chip have been equally as fast off the mark as their new invention. The scientists have already founded a company, called Integrated Silicon Systems Ltd. and it will be marketing the chips as soon as the first set is off the production line and out of the factory. ■



* Would you like your TV to set the video itself, record the programs you wanted and also edit out the adverts?

TV Times?

One of IBM's many vice presidents has looked into the future and has seen "personalized television".

Michael Braun would like to see intelligent computers which can monitor and relay information from a personalized menu to the user.

One vision is for smart TVs and video which scour the world's airwaves for programs which are of interest to the user. The system will be able to record, and possibly in the future even edit, such broadcasts. Once the data has been received, ideally it should be presented in the form of interactive menus. ■

E-by mail

A system called Directory Systematization (DS) has been developed in the United States which enables E-mail users on Enterprise networks to communicate directly with individuals rather than anonymous nodes.

When changes are made to individual directories they are automatically logged and sent to the linked systems thus allowing a more direct and immediate communication over local systems. ■

Like, yeah dude!

Computers and the gentle science of aesthetics are not normally associated together, after all a grey box is a grey box, isn't it? However, a magazine called *Reverb* seeks to change this view.

Submitted The Journal of Personal Computer Aesthetics, the mag comes in the form of a CD-ROM and is packed with animated images, interactive multimedia and even interactive features.

In order to access the wonder-

ous delights of the magazine you will need the following:

- A high-end bank account – the first few CD magazines will cost you \$59 plus post and packaging from the United States.
- A Macintosh 9539 or upwards with 5Mb RAM.
- An 8-bit colour monitor
- And, of course, a CD-ROM drive.

For more information, or to place an order, write to Verbrin, PO Box 12364, San Diego, California, USA. ■

Smart money

The Soviet Union is to have its first ever automatic cash dispensers.

The Soviet smart money machines will be more advanced than their western counterparts because they will make use of seven seats.

These seats can hold details of banking transactions, and other data in RAM. They will also hold details of the user's fingerprints. The initial implant is of 2,800 cards. ■

We are the holograms

Time Traveller is a new game which aims to take you into the 21st Century. Dig deep you say, that's what they claimed for Dragon's Lair and Space Ace.

Well you would be wrong. Time Traveller actually uses a different technology to achieve its effects. It makes use of holograms.

Developed by Sega of Japan, the game is already breaking sales records but is let down by the difficulty in its gameplay. Instead of using the conventional arcade game architecture of upright box or sit-down glass table, the game is mounted in a white fibre-glass box which stands at waist height. The player looks down into the system, and manipulates the game by use of three controls which are stationed at the top of the box. The player sees a black aperture into which the holographs are projected.

The aperture itself is lined with black shapes which are backlit. According to reports from people who have played the new machine at the World Electronic Entertainment Centre in Marina Del Rey, California, the

holograms look real, if a little out of focus.

The game play features a Back to the Future, or even Bill and Ted like theme. The player finds him or herself in the Wild West and needing to get home. Rather than any brain-teasingly complex puzzle solving, the game features a great deal of shooting-up, down and sideways.

The realism of all this violence, the kills are repeated, has already led some observers to question whether or not such as game should be allowed in public. It has also been questioned as to whether the game is too difficult. Even though a small training segment is available, featuring a young blonde woman, surviving the consistent death dealing is far from easy – even if the third controlling button can be used to turn back time.

Sega has not yet announced when the game will be on show in Europe. One final fact of historical interest is that the person responsible for Time Traveller also designed Dragon's Lair. And for the record, his name is Rick Dyer. ■



* The brains behind Space Ace have been creating Time Traveller which is not only a new game, but also introduces a revolutionary arcade machine

NEW PRODUCTS

Going up

PRODUCT: 386 PC upgrade card
NAME: Hyperace 386SX
COMPATIBILITY: PC (IBM PS/2 model 50)

Just because you have a 286-based PC doesn't mean that you have to be left out on the DOS speed stakes. A new upgrade board from Cheppen-based Hyperace means, according to the company, that 286s, beginning with the IBM PS/2 model 50, can be painlessly upgraded to 386 productivity.

The Hyperace 386SX card adds a 386SX processor running at 8MHz, as well as 1MB of cache memory. The additional cache memory is of the 'zero wait state' variety. There is also a slot for a 388SX numeric co-processor.

The company tells us that both Norton SI and Landmark speed tests have shown that the installed card can increase processing speed to 50MHz.

Price: £445
Availability: Now
Target users: At the moment, IBM PS/2 model 50 users. It is expected that compatibility with other PCs is forthcoming
Contact: Hyperace, 0812 63936
Perceived competition: None at the moment.



Speed isn't everything, but it certainly does help when working through acres of spreadsheet. This board could help your 286 to live up to expectations.

Type cast

PRODUCT: New typefaces
NAME: Typografica Newsletter and Decorative collections
COMPATIBILITY: PC

Desktop publishing is not just a matter of slapping pictures on a page. You also need text. Typografica's new typeface collections seek to take on two ends of that area. The Newsletter set comprises two headline fonts, Futura and Topaz, and two faces for use in body copy: LTC Gullion and LTC Caspian. All four faces come in bold, italic, bolditalic and roman.

The Decorative collection features eight faces of a more floribund nature: Europa, Gospel, Corgi, Wagner, Tudor, Spritz, Mercury and Ravel. Again these come in the standard four weights.

The Typografica range of fonts is compati-

WHAT'S NEW

The latest hardware and software in small, easy to handle chunks. The facts, the whole facts and nothing but the facts...

Neural kids

PRODUCT: Neural Networking tools for Windows
NAME: Neural Desk
COMPATIBILITY: PC

Neural Networking was one of the buzz phrases of the late 80's and early 90's. People were then talking about computers which would be able to emulate the human brain before the century was out. Now they are becoming more serious about the possible applications.

Neural Desk is in fact a Windows-compatible software suite rather than a hardware-based brain neuron emulator to its name might lead one to believe. It features three modules: Neocell, Neomodel and Neuron. Basically the set-up enables users of neural nets to explore the potential of their systems, developing new applications or linking with existing applications, using the Windows graphical user interface.

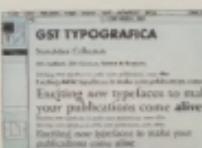
To run the system you will need a 386 or upwards with 2MB RAM, and a 20MB hard disk. Ideally a 386 with 307 math co-processor, 4MB of RAM, 40MB hard disk and VGA monitor are required. You will also need Windows 3 or later running under DOS 3.3 or above.

bit with a wide range of desktop publishing packages working under OEM and Windows. These include: Timewave, Publisher, PageMaster, DeskPress and Worsit. There is also support for database packages such as SuperBase IV, Excel and Microsoft.

Both of the new collections come with extended character sets which make for clearer reproduction of accented character sets.

Price: £92.62 each. However a special offer which lasts until 31 October means that both packs bought together will cost £150.40

Availability: Now
Target users: PC using desktop publishers and database users
Contact: GST, 0800 486789
Perceived competition: Highest up the list in Britain with its range of PC-compatible typefaces.



* The Newsletter collection from Typografica features some strong headline fonts to add character to even the dourdest database output



* Does your computer brain hurt? Well the remedy might be to lay your hands on some software to nudge its neurons.

Price: £985
Availability: Now
Target users: Developers and users of neural networks
Contact: Neural Computer Sciences, 0703 667779
Perceived competition: No other company is providing this kind of end-user/developer software for neural systems.



* Games playing - is it all humbug? But maybe your hand to eye co-ordination needs a workout with a joystick and an infra-red joystick connector

Sticks of joy

PRODUCT: Joystick and infra-red joystick connector
NAME: Gravis/Freedom Connection
COMPATIBILITY: Amiga, C64, Amstrad VCS, Sega MasterSystem

Games playing, eye-to-hand co-ordination, reflexes being sharpened, or just brain busting game? Either way you will need a joystick to play it up or knock 'em down.

The Gravis from Spectravideo comes with eight position control which is possible to pre-set; there are also three independent fire buttons.

The Freedom Connection is a strange entry to the gallery of computer hardware add-ons. It is an infra-red connector for standard joysticks.

One end plugs into the computer, while the other attaches to the joystick. The company

says that the joystick connector can even be carried around on your belt, whatever the odd night may be for that.

As a side issue, turn to page six and the Shoot from the Lip section to read extracts from the press releases relating to these products. It might also fit in with your smile.

Price: Gravis: £45.98 for the Amiga, ST, C64, Spectrum, CPC, £59.99 for the PC version. Freedom Connection: £23.44 for the Amiga, C64, Amstrad VCS and Master System
Availability: Now
Target users: Games players
Contact: Spectravideo, 081 909 0024
Perceived competition: None as far as the infra-red connector is concerned. Companies such as Xanix and Cheetha are direct competitors for the joystick. ■



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EXPRESS MAIL

Haydn Fitz-Williams gets to the heart of the matter this week with your views on Public Domain pornography, games pirates and gives you a chance to voice your views on what you think of Express



Plain insulting

Should you not be cautious – your response to P. Young's letter is issue 143 – about the File?!

Although "File" only means "sex of", it is – and I quote my encyclopedia – "especially used to indicate natural acts of royal blood". So perhaps you are a right royal bastard after all.

PS. Only joking

Alan B Cox
St Catherines

YES, AND CHECK OUT King Lear to see just what they can do. (For the more patriotic amongst you, I do realise that Edmund is not in fact royal... but you still wouldn't mess with him.)



Confessions

I too must confess to pirating software, but recently I saw that it was useless, and did more harm than it was worth. So why am I writing? Well to tell you (and the public) why.

I pirated software because I was not strong enough to break away from the creeds a sensible person would be followed by the sheep.

The fact was everyone else was pirating, getting away with it and having lots of fun with all their new games.

So I started pirating software and at one point I had over 30 contacts in some of the major groups.

Eventually the novelty wore off and the endless streams of (by then, covered in software) got to me and I gave it up.

But the novelty was off only two weeks into my snapping days, what about the other nine and a half months?

Well the snapping was really a cover-up to have a good time and meet friends, so all the shows you could go and meet new contacts, a couple of times we would invite people down from the north to have a good time.

The point is that many pirates are not in fact trying to rig the companies off but find it as a way to meet new friends with a common interest in a field that are both comfortable with.

But don't get me wrong, this is not an excuse for my actions, but more the reason for why we do it. I know I cannot excuse my

actions and I agree with P. Bates of Derby that if companies were to produce games then my life as a born again buyer of software would be easier. Thanks for listening...

PG. If this letter is to be included please omit my name and address since I still know a lot of people who would be wondering that I was going to start giving out their address and name to FATE.

This I would not do – and if I did I don't think I would survive till the end of the month... thanks.

PPS Any donations is my hand to buy Pen Pal would be gratefully accepted.

AN
Somewhere in England

THE LAST LINE OF YOUR PS is quite fascinating. I would have thought that living in fear of your life is an excellent incentive not to get involved with this area of computing. But maybe you're being a little flippanc' n'est pas?

Does any one know of any gangland killings, beatings or even thoughs ever having been made on account of Rainbow Islands or Kick Off? We would be intrigued to hear.

As for the rest of the points you made, you're right, getting together and meeting people is no justification for piracy. If these people are keen to meet up, they could at least try to use all the pooled expertise to produce some high quality games. They could even set up a software house which markets these games as demo discs. But do they? No, it's far easier to rip other programmers off.

PD magic

I had been planning on writing the above for several months. In this week's MCE you raise another hairy (whisky?) chestnut – pornography, so I thought I'll raise my two-pence.

I don't own a modem, and won't until Telecom loses its monopoly and reduces its charges. (The misspelling is deliberate.) I am against porn being available to people under the age of 18. If you can be sent abroad to the Arabs surely you have the right to look at what they like?

I am against the nanny state, a situation which has worsened under the guidance of the most tyrannical nanny this century. Porn is banned for all kids. It's crass, particularly those it violated sexual nature. Both Ireland and

Denmark have proved that there is not necessarily a link between the two and published statistics prove the opposite.

At 37 I have seen most types of porn from the stickering to the Innocent (joke films). It does make me wonder what goes on in some people's minds. I've seen some PD porn but none of it was particularly sexually arousing. Some of it did exhibit a pathetic waste of programming ability.

What does surprise me is that sysops and PD librarians blame the purveyors. They are responsible for any pirated software, or porn, in their catalogue but I think we are all too concerned about the possible effects of unsavoury material.

The tollfold press made much of the connection between the RAMBO films and the Hungerford massacre. Where were their journalists when it was revealed

that Ryan didn't see those films, or any similar ones?

Winkley and Bradley made little mention of porn in connection with their despicable acts.

I believe many sick people, when caught, blame whatever is currently in vogue – be it porn, horror movies, computer games, or their mother-in-law, rather than admit that they themselves are at fault. The end result of this is further repression of individual freedom in what is for them being a free country.

To finish I have a couple of complaints about the best weekly computer magazine. The letters page should be at least three pages long and the term is 'bated breath' not 'baited breath' as many computer journal's seem to think. I've seen the latter in more computer mags than you could shake your rod at.

Hope I haven't preached too

WANTED!

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3. Out of ten, how much did this week's cover make you

want to look inside?/10

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- Much better
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6. Rate out of ten this and any other

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NEW COMPUTER EXPRESS/10

7. Out of ten, how useful did you find this week's main feature?/10

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Return to: NCE, Issue 144 Survey, Future Publishing, Freeport, Bath, Avon BA1 2AF.

ON THE COUCH



This week the Doc with the shock takes a look at **SHAME** Hill from READING. Simone wrote in and told us all about the machine she owns, her laptop schizophrenia and the machine which would need her honest digital desires. All this information came on the back of a cheap postcard. All the advice comes in expensive checks. I am playing for it - £5. If you would like a more detailed analysis to knock out the edges, then write to, *Leather Coach Class, New Computer Express, 30 Mansfield Street, EC2R 8AN, 011 2600*. It would be the first chapter in the next chapter of the book of your new life...

Now then Simone, take the ribbon from your hair, shake it loose and let it fall. Psychoanalysis lies & here. So, tell us about the computer-related items which rule your life...

• **MACHINE OWNED:** Amstrad ALT 206

• **FAVOURITE SOFTWARE:** SuperCalc

• **DESIRED MACHINE:** Sun workstation

Well, that's really all we have to say at the moment, old. There is a continuity to your present possessions which seems to suggest a need for security. Until paired with a fetish for organisation and down to earthness (all the points in Simone's letter were neatly listed, with margin notes explaining background. The letter ran to five pages).

All of this suggests a stable personality who merely wishes to see her name in print. And it is this which is of most interest.

You say that you want the Sun workstation because it is a really nice computer don't you think?...

No, computers are not sexy things. A transference of straightforward desire from a chosen object to a machine is a major sign of a deep-seated neurosis. Confine this with your wish to have your full address printed in order that you can 'get together with other like minded people' and we have a classic case of dimensional sublimation caused through the psyche with a large dose of superiority syndrome - the Sun. PHOENIX2029.

You are ideally suited for a career to *Hell* where you could set yourself up as a government official and Tom Tom Macmill interviewer. Your need for organisation could be well used in a governing bureaucracy. Your sublimated need for contact would blossoms, and you would be thousands of miles away from the rest of us.

much. I look forward to your taking the piss in a forthcoming **ICE** letters page.

Bill Far
Dentys@Net

WELL BILL, I HAD TO BUTCHER THIS letter in order to get at least some of it in. Your initial points relating to piracy will, I am sure, be used at a later date. As for the question of the moment, PD, I think it's time for one point to be made clear. For some reason, everyone has picked up on the Porn angle in the PD article, pornography was just one of the areas explored. The others were viruses, violence and piracy. What does anyone think about those?

As for the 'f*ckery state' argument... that was not what we were proposing. The proposal was to *start* an organised, publicly accountable union of PD members. Naming them within it you will. And with that in mind...

Come together?



Following your article on PD in the **ICE** (Issue 142) I feel I had better write to you concerning certain events about a year ago.

I wrote to every PD company suggesting a self-financed 'ombudsman' scheme. This was due to the fact that I had been blatantly ripped off by a certain PD company (ES for a disk) and I was concerned over the sexual nature of some disks.

I actually got to see some of these at a friend's house and was appalled.

I suggested that the PD companies should give a small per cent of their 'profits' (ie. sales) because they are not supposed to make any to this scheme. This would go into a fund for the following purposes:

- To attempt to protect the consumer if a company collapses
- To advertise to promote its existence
- To control the pornography available if not to ban it, to tone it down
- To get assurances it was for over 18 years only.

It is certain each company would get an official 'seal' for their ads showing that they complied were reliable. The results of this are perhaps more interesting. Out of some 30 libraries found (and a year later five) replied.

Two thought it a good idea but one could not afford the fee. This I sympathised with. Quite honestly some PD libraries are not profit making and have little spare money.

Then again some are not. One library rang me up. They told me the idea was unworkable as how could I tell what was/what was not offensive? They are now one of the biggest PD libraries in the country and continue to sell so called XXX disks. There is too much money in it to stop it willingly.

Twenty-five did not reply. That

alone speaks for itself. I would ask the PD libraries to do something before it is too late and legal restrictions control the established forum for new talent, and above all not away the fun element.

Self regulatory bodies - like FAST - have been shown to be in the end beneficial to all but a small minority in society.

I fully admit that there is a problem controlling a supposedly nebulous PD forum, but PD companies are now well established businesses in many cases and are far from being in as either.

I await discussions on this.
Roy Chambers
Cumbria

RDY, SORRY FOR NOT informing you that we were going to publish this letter, busy, busy you know. Anyway, I think we have already made our point in terms of PD for **PD**.

In terms of these being too much money in willingly, the PD companies to drag it willingly. Would prefer to be more charitable about the whole thing. There would not be any money in it at all if people were not downloading it from BBSs or buying it from PD libraries. Appropriating blame is an exercise which should be carried out with care.



Service!

After a few weeks study of the various types of home computer available, we took the plunge and purchased an Amstrad STC some eight weeks ago. Being new to the computer scene, we did a few of the right things and read up on all the need to know stuff in the popular magazines. In order to increase our stock of software we invested a modest sum of £15 in a selection of PD software from *Vic 23*.

The software selected covered a variety of computer topics in order to increase our knowledge in these subjects. We are familiar with all the normal day to day operations of the desktop and mouse features offered on the Amstrad, but had genuine problems in 'opening' some of the programs sent on the PD disks.

Due to the disappointing results of this first venture, we sent a quantity of the disks back to *Jenetic* listing the faults and problems we had found and rather than request a refund, selected some alternative titles as replacement.

Imagine our surprise when we read the letter from the Proprietor (Mr. K. Kell) especially the tone of the whole item that came back, with the final insult of holding the renamed disks to threaten for the paltry sum of 58 pence.

Needless to say, *Jenetic* will be keeping the ransom disks and we will most definitely NOT be trading with them again.

Please make your readers aware of the business attitude that

prevails in *Jenetic* towards their most valuable asset, the customer. D.R & E. Dargin Chichester

WOULD ANY REPRESENTATIVES from the company in question care to respond to this?



I have never regarded **New Computer Express** as a sexist

station, but the Trojan advert you ran last week is downright phallic. If it's 'really aiming to please' Trojan is aiming at the wrong thing. Just what sort of market does it want to hit?

Was it not enough to make crude jokes about 'light guns in your pocket' in *Trojan's* competition feature? Do you have to go on about 'deep girls for good healing' and bigger? I'm surprised it's still up and can't shoot up to three metres and run from the maths.

I hope this is just a phase - er you're going through. It's no wonder we have a *Trojan* viral.

Sharon Marshall Blackburn

AH YES, THE HOARY OLD question of subliminal sexual content to advertising. *Computer's* Play is now joined by *Trojan* with its light gun. Does anyone else have Any 'spotted some sexual innuendo' in computer advertising' stories? Why not send them in.



What with history being cyclical, will my *Vic 23* will ever come back into fashion?

J.P. Gregg
Edinburgh

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MACHINE SPECIFICS

AMIGA

- Major upgrade for Silica's Scala
- Exclusive review: Omega's Sound Enhancer
- Superfast comms with SupraModem

SCALA UPGRADED

Fans of Silica Systems' acclaimed Scala presentation system will be pleased to learn that a major upgrade is now available. As reported exclusively in issue 145 of *New Computer Express*, Scala 2.0 is virtually complete, but the latest version bridges the gap between the two releases.

Since its release, Scala has rapidly become the Amiga's best selling presentation system, outselling its main competitor by a clear margin. With the release of version 1.1 Scala has become the most powerful presentation program available for the Amiga.

Features include:

- ANTI-ALIASING - As any video enthusiast will tell you, even the Amiga's high resolution modes can still look a bit jiggly when previewing video files. Version 1.1 of Scala has realistic anti-aliasing built-in as standard, giving the impression of a much higher screen resolution with smooth, jiggly-free fonts.
- AREA51 SUPPORT - Scala 1.1 offers full support for Area51, a system which

enables various Amiga programs to communicate with each other. This means Scala can be directly controlled by other Amiga-compatible applications, making it ideal for multimedia.

• COLORFONTP SUPPORT - Now you can take advantage of all those beautiful ColorFonTP fonts from Kozik. These should really been included in version 1.0. The one drawback with ColorFonTP is that as soon as you import a second ColorFonTP, it affects the palette of the first, changing its characteristics. Fortunately Scala avoids this problem with its powerful (and fully automatic) palette remapping facility.

• OUTLINE FONTS - When used on a machine with version 2.1 of Workbench, Scala 1.1 fully supports Compugraphic Outline fonts such as those marketed by Gail Blair for use with its range of CTP (Desktop Publishing) software. Outline fonts allow you to produce text at any point size without introducing jiggles.

Scala costs a hefty £694.39. Look out for a full review soon.

• Contact Silica on 081-329 1111.

SOUND ENHANCER

You've probably read about Omega Projects' Sound Enhancer in other publications, but to date nothing has been news of what is being called the most revolutionary sound-related product ever. The manufacturer claims that the E20, and improves the sound quality of the Amiga beyond recognition. Is it true or is it just hype? Read on to find out.

Thanks to those very nice people at Omega Projects, I've been lucky enough to have been able to have a play with the only Sound Enhancer in existence. At the time of going to press, Omega was still waiting for both casings and PCBs (Printed Circuit Boards) to arrive, but I managed to talk the company into parting with its one and only pre-production model.

The Sound Enhancer was originally designed for use with Omega's Sound Trap II sampler, a quite excellent little package for around £20. However, it will also work equally well with virtually any program that produces sound via the Amiga sound chip (MIDI applications won't be affected). This includes all games, music packages and samples - even the Intuition Display Beep! function sounds nice!

The unit plugs in between the Amiga's sound card and either your monitor or a 4A

(depending on which you use). It takes 8 power from the serial port via a 9-pin cable with a 25-pin connector. On the front of the unit are two controls, a proportional knob which controls the unit's effect and an on/off switch.

I must admit that I was a little sceptical when I first heard about the Sound Enhancer, but actually seeing one in real life has more than put those fears to rest. Put simply, I was absolutely amazed at the difference it made.

The greatest effect was on high frequencies (hi-hats, etc), but it also makes other frequencies sharper, including bass and mid range. The net result is far punchier bass and a quite superb high frequency response. It's almost like having a brand new sound chip installed inside your machine.



• Omega Projects' new Sound Enhancer works particularly well with sound samplers like AudioMaster. For a mere £35, it improves the quality of the Amiga's sound way beyond belief.

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If you enjoy the quality of the Amiga's sound, then you'd be a fool not to get your hands on a Sound Enhancer. **TE** Omega Projects is on 0805 763885.

MASS STORAGE NEWS

As any hard disk owner will tell you, backing up a hard disk can be a real pain. Even a fairly small capacity drive like Commodore's own 8500 can take literally ages to back up on floppy disks using a utility like QuattroBack. But once you start taking in terms of 10MB and more, much larger amounts of both time and disk are required.

However, there are alternatives. One of the most popular backup systems used with the corporate market is the TapeScanner, a sort of glorified tape monitor. Several tape streamers are already available for the Amiga (the Xcite unit, for example), but US-based TTR Developments has come up with a system to beat them all. Its Digital Audio Tape-based SCSI tape streamer can backup a massive 1.3 Gigabyte (that's 1,200MB) onto a single tape. What's more, it's fairly cheap - the US price is just over \$800. This price includes the SCSI-compatible tape streamer hardware, all the necessary software and a single 1.3Gb tape cartridge. **TE** TTR is on 010 868 277 8071.

If you're after something a little different, Xcite's new MDX-620 Optical drive may be just what you're looking for. This 600MB optical drive offers the storage capacity of a CD-ROM but with a major difference - you can write to it as

many times as you like (unlike WORM drives which can be written to only once). What's more, it uses removable cartridges, which allow you to increase the storage capacity still further simply by buying new cartridges.

No price details are available yet, but Xcite know as soon as Xcite get back to me.

TE Xcite is on 010 913 827 0685.

SNIPPETS...

Commodore have often touted transfer rates that may well be interesting in the new SuperModem 2600 from the Supra Corporation. It supports the V32bis standard which allows rates of up to 36,400 bits per second (bps) - that's over 16 times faster than even the fastest 2400 baud modems!

The unit offers full error correction and automatic adjustment to the optimum rate and protocol. It costs \$700. For more details contact Supra on 010 166 0727 0672.

Finally a completely hard disk-based Amiga 500? If so, then ICD's new Proxx may well be for you.

It's a high performance internal hard drive system for the A500 that replaces the internal drive inside the machine with a high speed SCSI drive. And, with ICD's Shuttleboard extension, you can have your external drive (you'll have to buy one if you want it to be expandable) act as slave DFD.

TE For more, phone ICD's UK distributor Silver Systems on 081 388 1111.

Jason Holborn

ST

- **Mac or PC: which should the ST emulate?**
- **British adventure with the Lucasfilm feel**
- **Control a whole MIDI empire from your ST**

FOURTH AND FINAL ST

Atari has some serious plans for the ST. Sam Tramiel revealed that the company has four new STs on the way. It has already announced the two possible STs, STyle and Part, and has even shown prototypes of the machines at a Chicago show three months ago. The Falcon super-computer is the third ST and now details of the fourth are coming to light.

The computer area has been buzzing with the news that the fourth ST would be an ST-PC, or an ST with a PC emulator inside for use. Everyone at Atari denies this will become reality, but now the full story is emerging.

It appears that Atari has been toying with the idea of slightly modified PC emulating ST for a long time. It produced a couple of machines and ran feasibility checks on whether such a machine would sell. However, during that research period, the company apparently decided against it.

On the face of it, an ST-PC seems like a great idea. Not only would you have all the benefits of the machine

range of software for the ST, but also the capability to run PC software. Most businesses still cling to the MS-DOS standard, so an ST that capability would have massive cross-market appeal. However, there are inherent problems associated with it.

For a start, no matter which PC emulator Atari uses, you still couldn't run colour VGA graphics. These days the only PCs worth their salt cost price are VGA (that's high resolution) machines. The vast majority of machines available for the ST only support monochrome CGA or EGA graphics at a vastly reduced speed.

Given these limitations and the cost of manufacturing an ST which did emulate a VGA PC, I feel that Atari would be unlikely to release such a machine. After all, you can buy a PC very cheaply these days and files from these computers can be read straight from the desktop by any of the ST range.

What would be a clever idea would be for Atari to release an Apple

Continued on next page ▶

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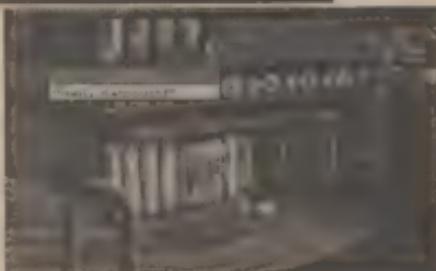
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MACHINE SPECIFICS



• Most of the best graphic adventures come from the US, but Vengeance from Revolution Software shows that the British can still produce the goods. Look out for it on the shop shelves soon

A Macintosh emulating ST. The code is Space GCR cartridge which is produced by Gadgets by Small in America is a superb piece of hardware which has many advantages over the expensive Mac Classic, Mac Plus and SE/30 computers, not least of which is the extremely fast hard drive access speed.

But the Space GCR is an expensive cartridge - to buy it with the Apple ROMs you won't get much change from £400. However, other companies attempting to get around the tight Apple copyright laws have produced clean laboratory versions of the Apple ROMs which don't include any of the original

code. These chips could be mass produced and released cheaply, making Macintosh clones a major possibility.

If Apple decided to produce a Mac emulating ST, this is the only route it could take. It is also the most obvious. If Apple wishes to stamp some of the Apple business model, this is one way it could do it.

BACK WITH A VENGEANCE

There's something about a graphic adventure which enables you to really climb inside the game to an extent that you never can with a simple text-based setup. The vast majority of these

games originate in America, so it's nice to see a British software house creating its own graphic world.

Vengeance is an adventure set in the Dark Ages. It has been produced by the Revolution Software team which has developed a system called 'Virtual Theatre', a graphic adventure environment much like Lucasfilm's point and click system. The final results of this are nearly ready and they look excellent.

The graphics are too notch rendered backgrounds with excellent textures - the slowly walking佐藤 on dungeon walls add much to the atmosphere.

The characters you meet in the game all have very strong, individual personalities. The character interaction has been cleverly devised and shows many elements of Lucasfilm's game environment you'd given four choices of questions. I ask and these questions lead others in a kind of branch effect. If you're lucky, some of the

characters will join forces with you. One of these willing minors is a chap named Ratpouch, a failed thief who helps you escape from jail. Ratpouch may or may not help you but wonders around, getting in the way when you least want him.

The plot of the game involves destroying an evil magician who is been using all sorts of nasty things to your castle. Dungeons and Dragons-type world. There are hundreds of puzzles to solve along the way, most of which can only be learned if you talk to all the people. The unfinished version I saw looked brilliant and I will wait impatiently for the final version.

Andy Hutchinson

Andy Hutchinson is a news editor on ST Format, the UK's biggest and best magazine for the whole Amiga range. Buy it from your newsagent every month.

A RECORDING STUDIO IN YOUR HOME

Endevote Soundworks has put together a rather tidy new bundle. These chips are the British distribution of the Steinberg range of MIDI software which includes Cubase and Cubet.

The Steinberg StudioPac comprises the Cubase sequencing program and the MIDI Plus hardware system and costs £645. Cubase has recently been updated and now represents the only serious rival to C-64's Modular package.

Basically MIDI Plus enables you to connect a whole wedge of MIDI devices to your ST, all controlled by Cubase.

Endevote Soundworks lives at The Studio, Church Street, Stonesfield, Oxford, OX7 2PS. Tel 0895 898484.

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TOP-QUALITY UNBRANDED DISKS AT DISCOUNT PRICES

2.5" 320K 3.5" 1.44M 3.5" 2.88M 3.5" 3.2M 3.5" 4.0M 3.5" 4.4M 3.5" 5.2M 3.5" 6.0M 3.5" 7.2M 3.5" 8.0M 3.5" 9.0M 3.5" 10.0M 3.5" 11.0M 3.5" 12.0M 3.5" 13.0M 3.5" 14.0M 3.5" 15.0M 3.5" 16.0M 3.5" 17.0M 3.5" 18.0M 3.5" 19.0M 3.5" 20.0M 3.5" 21.0M 3.5" 22.0M 3.5" 23.0M 3.5" 24.0M 3.5" 25.0M 3.5" 26.0M 3.5" 27.0M 3.5" 28.0M 3.5" 29.0M 3.5" 30.0M 3.5" 31.0M 3.5" 32.0M 3.5" 33.0M 3.5" 34.0M 3.5" 35.0M 3.5" 36.0M 3.5" 37.0M 3.5" 38.0M 3.5" 39.0M 3.5" 40.0M 3.5" 41.0M 3.5" 42.0M 3.5" 43.0M 3.5" 44.0M 3.5" 45.0M 3.5" 46.0M 3.5" 47.0M 3.5" 48.0M 3.5" 49.0M 3.5" 50.0M 3.5" 51.0M 3.5" 52.0M 3.5" 53.0M 3.5" 54.0M 3.5" 55.0M 3.5" 56.0M 3.5" 57.0M 3.5" 58.0M 3.5" 59.0M 3.5" 60.0M 3.5" 61.0M 3.5" 62.0M 3.5" 63.0M 3.5" 64.0M 3.5" 65.0M 3.5" 66.0M 3.5" 67.0M 3.5" 68.0M 3.5" 69.0M 3.5" 70.0M 3.5" 71.0M 3.5" 72.0M 3.5" 73.0M 3.5" 74.0M 3.5" 75.0M 3.5" 76.0M 3.5" 77.0M 3.5" 78.0M 3.5" 79.0M 3.5" 80.0M 3.5" 81.0M 3.5" 82.0M 3.5" 83.0M 3.5" 84.0M 3.5" 85.0M 3.5" 86.0M 3.5" 87.0M 3.5" 88.0M 3.5" 89.0M 3.5" 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PC

- **New low cost DTP program from Microsoft**
- **The 8514/A is dead - long live the XGA**
- **Ventura for Windows in glorious colour!**

MICROSOFT TURNS PUBLISHER

Microsoft is completing work on an entry-level desktop publishing (DTP) program for Windows, slated for an 18th August release. Publisher for Windows is expected to cost just under £100, will also be Microsoft's first DTP package.

Publisher includes Page Wizard, a tool which enables you to custom design your own pages determining such things as the number of columns and where pictures should go. It also includes a spelling checker, a text editor and a 'border' feature, which duplicates a picture around the edges of a document.

However, what Publisher lacks is sophisticated graphics and frame-handling capability - you cannot link a picture with a frame to its caption. And it doesn't have any style sheets, either.

Call Microsoft on 0734 866741.

COLOUR VENTURA

Sophisticated colour capabilities within Ventura, which have previously been the sole domain of the Macintosh, will now

make the transition to Windows via a joint development agreement between Ventura and Pre-Press. The new colour facilities allow users view images on screen in full colour, rather than seeing a black & white graphic that will be printed. The development effort between

Pre-Press and Ventura has also resulted in four new modules - a scanning program, an image manipulation program, a colour separator for newsprint and a professional colour separation program.

Each will be sold as 'Professional Extensions' to the base publishing product but each can be used as stand-alone products that will be accessible directly from the Ventura Publisher for Windows menu.

8514/A BITES DUST

IBM is to discontinue its high-resolution 8514/A graphics board from October 2, although it will support boards that are in use. The move may help to promote XGA - a graphics board IBM wants to

establish as the next desktop computer standard - but it won't be welcome to non-PS/2 and low-end computer users.

Although the documentation lists XGA as a replacement product for 8514/A, it can't be used in 286 or non-Micro Channel Architecture computers (ie, ISA and EISA), two areas where third party versions of 8514/A could be used. IBM has promised to release an ISA version of XGA, but hasn't said when it will be ready to ship.

MERGE SURGE

Is it the hot weather or something? First Borland and Ashton-Tate merge and now Novell is set to buy our Digital Research for a mere \$80 million.

Continued on next page ▶

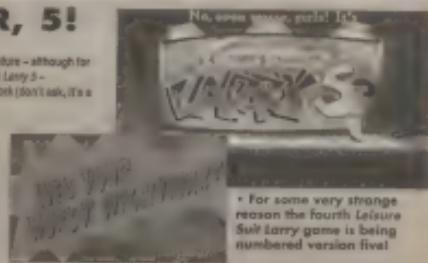
LARRY 4, ER, 5!

Leisure Suit Larry is back in his fourth adventure - although for some reason it will be known as Leisure Suit Larry 5 - *Passionate Patti Does a Little Undercover Work* (don't ask, it's a long story).

In the latest episode you play both Patti and Larry, while Patti investigates corruption in the music business for the FBI. Larry hunts for the 'Sexiest Woman' - nothing changes!

Leisure Suit Larry 5 promises to be raunchy, witty and thoroughly disgusting - much to the relief of the many Sierra fans out there!

Call Sierra on 0734 363322.



* For some very strange reason the fourth Leisure Suit Larry game is being numbered version five!

IBM PC MUSIC SOFTWARE



If you want to make music with your PC, talk to us. We have been in the field of computer music for six years, and our staff are fully able to advise you on your music requirements. We have products to suit all tastes at prices to match. Give us a call today!

Finale 2 is here!

The definitive music DTP program for the IBM PC. Finale runs under Windows 3 (compatible with Adobe Type Manager).

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→ Finale prints to any printer supported by Windows.

→ Finale has the best resolution of any music program.

→ Finale has overwhelming music editing options.

Finale is the most capable notation program available. It will notate just about anything, and the results look gorgeous.

Keyboard: February 1991

Finale 2 costs £699 (including VAT at 17.5%).



Voyetra Sequencer Plus Version 4

Voyetra Sequencer Plus is arguably the industry standard sequencer for IBM machines. It is in use in many commercial recording studios worldwide. Version 4 supports almost all MIDI interfaces (including the IBM PS/2 MIDI card) and sound cards (including Ad Lib, SoundBlaster & Roland LAPC-1 cards).

'an extraordinary sequencer, maintaining an admirable balance between editing power and straightforward operation.'

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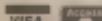
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MACHINE SPECIFICS

▲ In May AT&T spent \$1.2 billion for NCR and Lotus spent \$65 million on Summa Corp last Autumn.

However, it appears that the sudden flurry of mergers has been sparked by a new marketing trend. Doug Kans, an analyst with DataQuest, explained, 'There is a whole new market entry mentality. Isolated technology is not as effective as earlier in the industry's history. Buy-outs, mergers, acquisitions and strategic alliances are becoming part and parcel of how the industry does business.'

It appears that the by-word is diversification - companies devoted to one primary product just cannot afford to go it alone. However, firms in niche markets, such as graphics, have a greater opportunity to grow by expanding into related categories. The merger trend is, apparently, the industry maturing rather than a levelling off of growth.

'There is no兼併, just consolidation,' added Charlie Feldman of Frostview Associates, an American firm specialising in software mergers. 'Consolidation implies that the industry is shrinking and there are a smaller number of companies. That just isn't the

case. With this growth comes bigger companies that can now afford to make larger purchases.'

This encourages the formation and development of smaller companies. Well, that's the theory anyway.

NEW SHARPER PEN

Microsoft's most beta version of the Windows for Pen Computing OS incorporates features specifically designed to take advantage of the pen-based platform.

New features include such capabilities as gesture support, which will allow you to create simplified macros. For example, you could establish a set of movements for inserting a paragraph of text, or drawing an area.

The system will also include training as the fly which conditions the operating system to the user's personal handwriting style.

Pen-aware features in Windows for Pen Computing are comparable to those in OS Corp's PenPoint, such as conservative editing, handwriting customisation, and 'raw ink', which refers to text that is left unrecognised on screen. Microsoft is an task to meet as deadlines and aims to ship the final version of its OS in December.

In early September, Microsoft plans to release another beta that will include a completely revised handwriting recognition engine which will be able to recognise overlapping letters.

Paul Rigby

DOS 5 CORNER

AppleTalk, Netware, Banyan Vines, DECnet, and your SHARE users, yours to keep! Visit <http://www.sharegroup.co.uk>

CPC

- Codemasters' Quattro Cartoon reviewed
- Help for 3.5-inch disk drive owners
- Cheats to banish those multiface blues

QUATTRO CARTOON

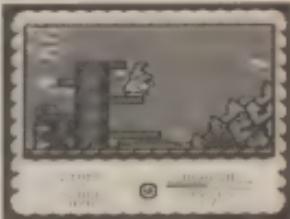
Just how big is Codemasters' back-catalogue of games? This company has just released its *unprecedented* Quattro compilation, and shows no sign of slowing up.

The Quattro pack all contain four full games, but sell for a budget price of £3.99. And the latest offering, Quattro Carton looks particularly good value.

On one side of the box art is an

Codemasters could have got away with selling it as a half-price game (but keep your voice down).

● Little Puff is even more cute. He's a little dragon who's accidentally become lost, and all he wants to do is find his way home. Unfortunately, little can get back into dragon-land without collecting four passes scattered about the landscape.



+ Wizard Willy: excellent graphics, a great soundtrack and real playability

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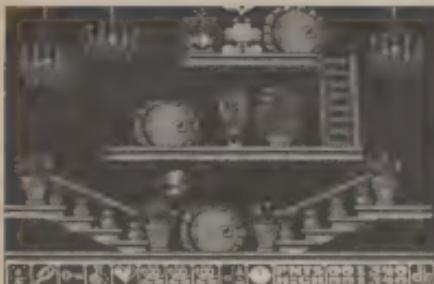
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MACHINE SPECIFICS



* The excellent OH! and Lisa 3 is the best of a very good bunch on the latest Quattro games compilation

Needless to say, they're pretty well hidden, and there are plenty of monsters out there getting them. However, there are objects you can collect to help you. The graphics aren't in the same league as Wizard Why's, but they're still not bad, and the game plays nicely.

• **Frankenstein Jester** is distinctly grisly. Your collected together dad has come unhooked, and you have to go round collecting the various bits and pieces of his body so that you can put him together again. The actions fast and furious, but there's really not a lot to it.

• In OH! and Lisa 3 the eponymous characters want to build a car, but they

don't have all the parts. These are to be found in the rooms of a castle – but which rooms? Not only that, our parts of the castle are invisible until you've collected a magnifying glass.

Once you've collected all the bits and pieces you still have to put them together. This means finding the right tools and the places used. The graphics are pleasant and well-animated, though the control method takes a bit of getting used to. Get round that and you're looking at the best game of the bunch.

For £3.99, it seems cheap to pick that, doesn't it? These Quattro compilations really are superbly good value for money. The only weak game on this latest compilation is

Frankenstein Jester, but even that's good for a couple of hours on a wet Wednesday afternoon. The other three are little gems.

MULTIFACE TIPS

Here's a tip sent in by Mike Stobadian a while ago now. It might help a few people struggling to save games with the Multiface.

"You'll know that Multiface 8 Plus does not save all your games properly and some of them will crash (Bubble Bobble, Super Hang-On). I have found a way round this:

1 After a failed attempt at loading the desired game – and you're sure it was the fault of the Multiface – reset the computer.

2 Press the red button, but don't take your finger off.

3 Press the reset button and let go, still keeping your finger on the red

button.

4 Let go of it now, and the computer should either return to BASIC, or press R for Return, and then it should restart.

5 Load the required game straight away.

6 When it has loaded, press the red button (followed by Clear if it is not a 6128-only game), and save to your disk straight away. Switch the computer off and then load it from your saved disk.

This should work for everybody with a Multiface 8 Plus. It works for me, and I now have just about all my saved games on disk."

Rod Lawton

Rod Lawton is editor of *Amstrad Action*, the biggest, best and brightest magazine for the Amstrad CPC. Buy it from your newsagent every month.

SWAPPING ASCII FILES

If you have a 3.5-inch second drive, the chances are that sooner or later you'll be wanting to experiment with swapping ASCII text files with IBM PC clones.

Well, it won't always work. And it could be due to something potentially simple, as Mike Parkin of Helestechnic, *Quarantine*, explains:

"When using a large capacity

second drive and IBM PC compatible file formats, always type upper case letters when you save your files. The software does not necessarily do the lower to upper conversion found in IBM and some IBM clones will not read filenames in lower case ASCII."

Anybody out there kidding themselves? Easy when you know how...

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C64

- 3-D Construction Kit review special
- Create your own games and worlds!
- Cheats galore for the Hits compilation

CONSTRUCTIVE CRITICISM

3-D Construction Kit is here. And what a corker it is, too!

Having just flicked through the rather hefty manual I was very tentative when loading the package. But I needn't have been.

It loads in three sections.

• The Environment editor allows you to create and manipulate your 3-D world.

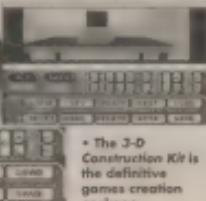
• The Condition Editor is where the game's conditions (or rules) are specified.

• The Compiler, which translates your creation into a standard game.

The basics behind 3-DCK are very simple. Your 3-D world is created in a series of which up to 254 can be used in each game. You cannot go beyond the boundaries of an area, but entrances can be defined using the editor.

Once an area has been established you can begin to build whatever it is you want to build. A potential nightmare? Not! Incredibly simple in fact.

You summon 3-D shapes (hexoids



• The 3-D Construction Kit is the definitive games creation package

and pyramid) and 2-D shapes (rectangles, lines, triangles, hexagons, quadrilaterals and pentagons) into your world, where they can be stretched, sheared, rotated, moved and shaded. This is mostly achieved owing to the icons not being specified in the manual, but the concept soon becomes second nature.

To build more complicated structures, different shapes must be joined together. For instance, I made a 'house' from a stretched octohedron with a stretched pyramid on top. The door was a 2-D rectangle pushed right up at the cuboid, which, incidentally, is how all doors are created (not in rotation windows). And it all took just minutes.

Shading is a breeze - the shaded face of the current object is selected, then the required hue is highlighted and bingo! It's just a city there is no facility to create your own colour combinations. Having said that I can be done with a mouse-eade monochrome.

TOTAL CONDITIONING

While you have constructed your world, the real work begins when you load your environment into the condition editor. 3-DCK utilises the Freescape Command Language (FCL) which consists of 40 or so commands and small routines (or procedures) can be constructed to bring the game to life.

This is probably the one factor which will deter many people from taking the plunge, as many are reluctant to learn new languages.

• GENERAL conditions are those which

are executed constantly, such as score, energy levels, etc; all essential checks and tests should be included.

• LOCAL conditions only apply to the area currently occupied and are concerned with all processes in that area.

The language is a step up from BASIC, indeed very easy to pick up. Variables can be manipulated (for scores, etc), colours changed, assets destroyed or moved, sensors activated, text messages displayed, and sound effects triggered.

Creating your world could take a matter of hours, but the FCL will take quite a while to master. But don't let it, you can't expect to have a complete game up and running without any effort whatsoever.

Yet that game can be enhanced by an attractive border, created using the Advanced Art Studio, although the examples included could be used if you're hopeless at art.

In conclusion, the 3-DCK is the games creation package, and a whole lot more besides - I have of one chap who used it to plot out a house extension. Creating something along the scale of previous Freescape games is possible, but will take time, indeed infinity is right from the start.

If you are prepared to master the Freescape command language, and have the imagination to create amazing 3-D worlds, then 3-D Construction Kit is all you will ever need. The whole package is almost faultless, with only a few teething little quirks.

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A final point to note: If you buy the Kit from your local software store you will receive the program itself (not tape/soft), the manual plus a tutorial video. However, if the Kit is ordered from the Home Computer Club the video is not included. This is due to Comtex/WH Smith having different contractual rights with Intermedia and indeed there is a hefty price difference.

Andy Roberts

CHEATS GALORE

Even though the *Hits* compilation isn't available in the shops until September, the following cheats may be welcomed by people who own any of the games regardless:

- *Riptmare* - Type **I HATE BROS** at the very bottom-right of the screen before loading the game.
- *Snare* - Holding down any of the function keys when pressing F1 to start the game will activate a cheat; one gives infinite lives, one immunity to pits, the other immunity to aliens.
- *Summer Camp* - Enter your name as **CALAMITY** on the high score table for infinite lives.
- *Crocodiles* - Plug your joystick into port one and wait for the title screen to stop, then wiggle your joystick like crazy when the high score table appears - when the Crocs turn grey, put the joystick back into port two to start the game with a difference.

SPECTRUM

- **Getting in touch with cheap modems**
- **Garner Designs responds to its critics**
- **Revealed! All 30 passwords for Riptoff**

CHEAP MODEMS

The wonderful and exciting world of computer comms is also a pretty expensive one. Never having enough cash for the necessary state-of-the-art communications equipment, not to mention living in one of telephone bills larger than the national debt of Brazil, comms is an experience which I have always missed out on.

That could all soon change, though, with the discovery of some cheap readouts. A company called BD Services is selling the standard Speccy modems, the VTX5000 for £159 (£20 for a Plus 3/Plus 2A version). This represents astonishing value for money and at little more than the price of your average piece of software gives you access to bulletin boards, telephones and multi-user games amongst other stuff.

I think I can safely say this is a genuine bargain and almost certainly the cheapest way of involving yourself in the world of telecommunications.

Contact BD Services at 64 Roebuck Road, Chesham, Bucks HP1 1JX for more details.

KEYPAD CORRECTION

A few columns back, Daniel Wyness revealed the deep secrets of the mysterious 1986 hidden editing functions. Well, Alan D Cox of EdTech has got in touch to tell us of a few omissions:

- Delete from the character cursor on and as far as the next space to the right should be Extended mode then ill.
- Cursor to the start of line can also be graph, X, graph key.
- Cursor at the end of line can also be graph, X, graph.
- Graph, W, graph or Extended mode then ill moves the cursor to the beginning of the program.
- Graph, V, graph or ill mode then T goes ill at the end of the program.

GARNER REPLIES

The Garner Design backlash continues this week. Regular readers will probably remember reading two letters in this column recently criticising Garner Designs, one-time organiser of the acclaimed Plus 3 Users' Group and now publisher of *Siamese* & *SAM Computing* magazine.

I asked for further response and got plenty of it from other dissatisfied customers as well as Daniel Garner himself. Paul Oliver, Leslie Lee, James Paton and John Lord all wrote complaining of cashed cheques, long waits and disappearing goods when ordering things from the company.

Some have been previously happy members of PlusUG and even genuinely disappointed in the poor service they've experienced lately in one way or another.

James Paton summed up feeling well by putting the question, Are they a group of enthusiasts who have bitten off more than they can chew or budding entrepreneurs who think only of profit and forget the customer?

Poi Glover asked if Designs is trying its best to produce the magazine and supply most order goods it needs encouragement and understanding, but we need to be told what's going on.

Which is exactly what Daniel Garner, proprietor of Garner Designs, wrote to tell me about. I've had to chop bits out of his letter but hopefully this is a pretty fair-minded version.

In reference to the non arrival of orders and long delays, Daniel did say some of the blame lies with his local selling office which has given poor, inconsistent, yet persistent problems with one (and other companies' and individuals') poor going lately...

However, he goes on to say, 'There have been some delays at our end since

Continued on next page ▶

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MACHINE SPECIFICS

◀ Early 1991 caused by the massive undertaking required to launch Sinclair & SMC Computing.

While we believed the new magazine would be popular we did not, and I believe could never, foresee the sheer number of new subscribers we received within an extremely short period.

For a company, which at that time was geared up to deal with the relatively small scale associated with the Plus! User Group, to be suddenly and unexpectedly having to cope with a flood of subscriptions, I was thankful that the system had been well thought out.

Having said that, I think we've done exceptionally well in coping and the backlog is quickly vanishing day by day. Within a couple of weeks we shall be up to the operating speed which you and your readers so often associated with.

Robin Alway

PSSST, WHAT'S THE PASSWORD?

Here for the sake of your sanity, scores and game playing reputation are all 35 of the level passwords for Rymtut, the really rather good game recently included on a Your Sinclair cover tape. They were painstakingly uncovered by two faithful Speccy spotters, Matthew Wilson and Alan Hart.

1 UNBALOOP!	8 BUD	17 KIT-KAT	25 SPAKFOX9
2 WEE PAUL	10 LICKISH	18 GEEZAHAND	26 HARLEQUIN
3 MOONCHYNAME	11 GLORIBITS	19 FLOOSHUMP	27 BASGVILLAI
4 MOUSSE	12 COCKORNIT	20 GOOLGS PRY	28 SWAO BIRDO
5 RUMI	13 SKREEM	21 TRI CLASO	29 BLAZNO KLA
6 BAMPLE	14 FURSTINAT	22 FAR TUFF	30 CRK ROME
7 MCALIKEY	15 RAINDROPS2	23 PUDDLEGUM	Thanks guys!
8 YOU D—D	16 GALLONSK	24 KANGIS BLO	

the Plus!GUD. We've also taken measures to situate such delays as do occur so that we get another large increase in orders again.

So to sum up, you have my personal assurance that Garner Design is working its tail out (and I mean 110 per cent tail out) to clear what backlog remains. We have done, and will always continue to provide back up to all our customers, even when we don't have to.

Many thanks to Daniel for putting the matter straight. Garner Design has been one of the 'Speccy user's' staunchest allies and best friends in the past. Let's hope it can regain its old form and return to its professional and user friendly ways without delay. So long as the above readers' problems would be a good move in that direction.

Robin Alway

MACINTOSH

- Notebook-sized Macintosh 'clone'
- New Claris integrated software launched
- Secrets of the 'Map' desk accessory

RUMOURS...

Apple has finally announced it will deal with a Soviet computer distributor, as predicted in this column two weeks ago.

The Moscow-based company, Intermost, is to receive its first shipments of Macs in September. According to the company's technical director, Anatoly Karpovtsev, plans are in hand to release local language editions of several Mac packages by the end of the year.

A top Apple executive, Pacific region vice-president Ian Davy, has been quoted in an Australian newspaper as saying that IBM is vital to Apple's future. When asked what he thought about the possibility of the recently-announced Apple/IBM deal failing, he replied, 'I don't like to think.'

He also said that he expected the link with IBM to add at least \$1 billion per year to Apple's sales, starting in two or three years' time.

Most US Apple clients think about one of their executives admitting things like this is not known.

The Massachusetts Department of

Revenue has thrown a slight spanner into the works of the Boston MacWorld Expo. The Department has decided that any company selling goods or services will be liable for collecting Massachusetts sales tax for the rest of the financial year.

This will provide major administrative headaches for many companies and at least one, the MacConnection division of PC Connection, a New Hampshire-based firm, has pulled out of the show because of the decision.

According to David Hall, executive vice-president of PC Connection, the show won't work the risk of being stuck with the sales tax liability.

OUTBOUND NOTEBOOK

Remember the Outbound laptop? You know, that the Apple-approved, Mac-compatible machine which 'ticks' to a Macintosh. Well, apparently Outbound is about to ship something called the 'Outbound Notebook System' in the next couple of weeks. This is a computer which provides full Mac compatibility in a notebook-sized case.

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A10	11 x 14.5	60 GSM	Hell inch green bars	2000	13.75	89 x 39	3
A11	11 x 14.5	70 GSM	Plain	2000	25.43	89 x 39	2
A12	11 x 14.5	70 GSM	Music Rule	2000	20.40	89 x 39	1
A13	11 x 14.5 x 2.5	60 GSM	Micro Memo (A4)	2000	13.60	89 x 39	3
A14	11 x 14.5 x 2.5	70 GSM	Plain Micro perf	2000	13.60	89 x 39	1
A15	11 x 14.5 x 2.5	80 GSM	Plain Micro perf	2000	13.70	89 x 39	3000
A16	11 x 14.5 x 2.5	90 GSM	Plain Micro perf	1500	13.70	162 x 36	2
A17	12 x 9.25	60 GSM	Plain Micro perf	2000	13.60	162 x 36	8900
A18	12 x 9.25	70 GSM	Plain Micro perf	2000	13.60	162 x 36	13.29
A19	12 x 9.25	80 GSM	Plain Micro perf	2000	13.60	162 x 36	22.00
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Weighing around 8lb, the Outbound notebook is 11x8.5x2.5-inches in size when folded down, and can be configured to include both a standard 3.5-inch floppy disk and an internal hard disk of up to 40MB – in direct contrast to Apple's new portable machine, expected in October, which will need an external floppy disk drive.

The notebook's mouse replacement is a new version of the company's joystick device, called the TrackBar, and the display is likely to be a 10-inch, 16- inch LCD.

Powered by the type of batteries normally found in portable cameras, the notebook will be available in a number of different configurations, ranging from a 20MHz 68000 processor machine up to a full 33MHz 68030, and will be able to support a RAM disk of up to 60MB in size. The price of the machine will start at around £2,899 and will go up to £4,299 for a 68030 machine with 60MB hard disk.

Expect to see the new Outbound notebook on sale in this country in about two months' time – full details of UK prices as soon as we've got them.

CLARIS INTEGRATED SOFTWARE

Apple yesterday Claris has announced the release of ClarisWorks, a new integrated software system which is targeted at first-time buyers of the Mac.

ClarisWorks features several integrated modules: a word processor, graphics editor, spreadsheet, sharing,

database management and a communications unit. Unlike other integrated packages, ClarisWorks doesn't force the user to switch between different modules to perform different tasks; instead, all tools are available from within the main document window.

Because the modules within the program are based on Claris' own programs such as MacWrite, MacDraw, Reside (the spreadsheet) and FileMaker (the database), ClarisWorks is an ideal first buy for people who can then upgrade to the fully functional programs if they wish.

The suggested retail price for the package is £185; in addition, owners of

Microsoft Works, Symantec GreatWorks and MacTime can 'upgrade' to ClarisWorks for £200.

■ Claris is on 0800 929665

PRODUCT NEWS

■ Atrys now announces that Fotographer 3.0 is now shipping.

The new version of the program has been upgraded to include the ability to read and write TrueType fonts for the Mac and PC (at last), for PC running Windows 3.1, which will have TrueType support but which was supposed to have been released in January.

Fotographer is virtually an industry-standard file creation package, so the

inclusion of TrueType support is vital if the program is to maintain its position in the market.

■ For further details contact Bellline Distribution on 081 642 4942.

■ Microsoft has announced a product called Microsoft Project, which is a powerful and flexible graphical tool for managing project schedules, tasks, budgets and resources. Note, I don't know what that means either, but if your eyes lit up when you read the quote, then you will be pleased to hear that the program will be available 'in August' at the suggested retail price is £495.

■ Microsoft is on 074 506741.

Ian Wrigley

POSTCARD FROM AMERICA

The original Macintosh bundle came with a handful of little utility programs called 'Desk Accessories', available only through the Apple menu. System 7 has almost done away with this, so that any file or application can now be put under the Apple. Other new types of small, but useful programs, Control Panel Drivers (CPDs) and Extensions (formerly INITs), have become popular as the Mac has grown up. The Mac Control Panel is a good example.

Even modest programs have hidden features. Here's more than you ever wanted to know about the Mac.

■ The standard Mac is black and white, but colour machines were not forgotten. In the System 7 Scrapbook is a colour PICT of a world map which was specifically designed to replace the standard map. In fact, any PICT can be pasted in – Mickey Mouse or X-rated naughty bits can become your home town.

■ If you're having trouble seeing your place on the map, try

holding down the Option when opening the program to get a zoom view. The Option + Shift key moves down even closer to ground level. Holding down the mouse button while pointing a city will tell its name.

■ Holding down the Option key while clicking on the Find button scrolls through the cities alphabetically. Try finding the place 'Madrid' for a cute surprise.

■ Clicking on the words 'Time Zone' will change to 'Time Differences'. Mac will show you the difference in hours, and the actual time there. You can use the Set command to fool your Macintosh into believing it's in another time zone.

■ There was quite a stink on the internet about what municipalities were left off the map list. Fortunately, any city can be added to the program. Edinburgh, Cardiff, London, and Dublin are found in the US version.

David Morganthau

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WHOLE WIRED WORLD



Off the wire this week, Steve Gold reports on the long awaited Atari control panel, Aussies who think CDTV is fair dinkum, an adaptor to link your PC to your ST, and promising new add-ons for the video toaster.

ISRAEL LOSES ATARI CONTRACT

It looks like Atari has put the stoppers on plans to build a \$25 million computer manufacturing facility in Israel. According to a letter sent from Alan to Zvi Karen, the head of Israel's Trade and Industry Ministry, Atari has zapped the project, blaming lengthy foot-dragging.

In the fax, Alan claims that it took the Trade and Industry Ministry on 26 June to receive a reply no later than 21 July. Since that reply never arrived, Atari said it was withdrawing the proposal.

For their part, Israeli ministry officials claim that Atari's formal request for the investment arrived on 18 July, and that a ministry commission had invited to meet in late July. They expressed hope that Atari would reverse its decision. All the signs, however, point to the project being canceled.

The leaves Alan with only limited production of its machines, with the bulk of manufacturing contracted out to third-party companies. Contracting out is a financially efficient method of production - Amstrad contracted out its early days of PC production - but it does mean that a company is at the mercy of the contractor. If sales skyrocket, amassing for extra machines will meet demand can prove tricky.

CONTROL PANEL FOR ST AND TT

After several months of rumors and promises, Atari has finally released its new control panel for the ST and TT machines to the public in the US. First reports suggest that the new graphics front-end for the ST/TT series is well worth the wait.

When the rumors about the new control panel started last year, more in the industry thought that it would only work with the TT's and Mega STE's, not according to an Atari representative. "It will work on all ST, Mega, Stacy, STE, Mega STE and TT systems."

Basically, the principle seems to be, if it's a DOS driver, the computer will run the new control panel. So what is the new control panel? Depending on where you first heard about it, the new control panel comes under several names - the new control panel, X-control, and the extended control panel. Despite these working names, its official title in Atari circles at least, is the "extensible control panel" or ECP for short.

The ECP is a replacement for the old control panel seen on the ST. Like the first control panel, the ECP allows users to configure the ST's systems - mouse-click, rate, key repeat rate,

AMIGA HAILED A SUCCESS 'DOWN UNDER'

The Commodore Amiga continues to gain the edge on the Amstrad ST. Reports just in from Australia suggest that the World of Amiga show held in Sydney is now only now a great success, with around 30,000 paying bodies walking through the doors.

In contrast, the last New York World of Amiga show only had 11,000 visitors. One reason for the record turnout by the Aussies may have been the fact that the show marked the debut of the CDTV system in Australia.

Talking of which, what's happening with the CDTV? Chatting with Paul Fletcher of the European Multimedia Centre in London (0171 287 2731)

recently, he confirmed that European multimedia is working quickly on the CDTV, with a major push planned this Autumn.

The EEC is involved, since it's dedicated to producing multimedia computing... expect the Amiga CDTV to hit the market in the not too distant future.

colours, printout, modem, etc.

What makes the ECP different, says Alan at US, is that it loads an individual CPC program module as it needs them. This cuts down on the amount of memory required for each different function.

This enables users to customize the ECP to their own use. Several versions of the ECP can be placed on disk, for use in different situations. For instance, where RAM is tight, a base basic ECP can be loaded, when running a simple program, the full ECP suite of software - essentially a Dragon Sidekick range on the ST - can be loaded.

So when will we see the ECP in the UK? Sources suggest later this year. In the meantime, take an online stroll



around your favorite on-line system or BBS. If the system has an Amstrad, chances are that you'll be able to download the new ECP from it.

Z-KEYS ADAPTOR FOR PC

Zebulon Industries has announced an adaptor for the ST - it's called Z-keys and enables almost any PC keyboard to be used with almost any Amstrad ST.

The \$99.95 adaptor is said to be relatively easy to fit and plug a under the C2D or 1040 ST's existing keyboard, leaving a fitting keyboard adaptor slot. The PC keyboard can then be plugged in as usual. If you have a Mega ST or STe, a further extension cable is needed - this adds \$24 to the list price.

While it's fair to say that the US marketplace has a number of keyboard kits for the ST, this is the first one that lets users access all the keyboard you can choose of PC keyboard to be used. So when's a version coming out for the Commodore Amiga then? Soon, the company says. Contact Zebulon Industries Inc, 52400 Paramount Boulevard, Lakewood, CA 90712, United States. Tel: (310) 213-4097/15.

ATARI PORTFOLIO FORUM DEBUT

At long last, the Atari Portfolio has its own area on the CompuServe on-line information service. The area, which opened at the end of July, is called the Portfolio Forum, and includes interactive messaging and a growing number of program files for the increasingly popular Amstrad pocket-book PC.

The main topic at the time of writing seems to be how to maximize data storage on the Portfolio. Several programs available for download help users make the most of the RAM, and RAM cards they have. If you have a monitor, the CompuServe PalmTop Forum is well worth checking out.

Further details of CompuServe on 0800 269458 (voice).

TOASTER OF THE TOWN

Newtek, the developers of the Video Toaster for the Amiga, has previewed version 2.0 of the driver software for the add-on graphics unit. First reports suggest that the software greatly enhances the capabilities of the unit.

Newtek's Video Toaster is actually a video controller board for the Amiga that allows the computer to simulate professional quality video effects. With version 2.0 of its software, Newtek has added several new transitional effects to its software, including animated effects such as turning gears and disco effects such as smoke and clouds.

Newtek is shipping the Video Toaster workstation in two versions - version 1.0, at \$3,995, comes with an Amiga 2000 equipped with 5Mb of RAM and a 50Mb hard drive. Version 2.0, meanwhile, costs \$8,995, and comes with an Amiga fitted with a 50Mb 68030 microprocessor and math co-processor, along with 9Mb of RAM and a 120Mb hard drive.

Contact: Newtek, 215 SE Eighth Street, Topeka, KS 66603, United States. Tel: 010-213-354-1145. ■

Pen Pal

* Atari's new control panel (ECP) works with both the TT (above) and the STe.

FULLY EQUIPPED

Mary Branscombe reports on CASE tools for single users, cut price utilities, GFA-BASIC for Windows, and protecting your programs from nosy users

CASE tools (that's Computer Aided Software Engineering) can make programming a whole lot easier, but most CASE tools are designed for groups of programmers working on a network of workstations... and they're usually very expensive to boot, often costing £6000 and upwards.

Personal-Selsoft/BSDAM from Selsoft Software is considerably cheaper than that, although it's still quite pricey at £495. It's a single-user CASE tool for the PC, because not everyone writes their programs in a group.

Personal-Selsoft/BSDAM supports version 3 (as well as the newly arrived version 4) of BSAAM - the Structured Software Analysis and Design Methodology which is used in government defence projects.

It stores the design for your program and uses techniques from knowledge-based systems to check that this code will later actually matches up with your original design for the program. Contact Selsoft Software on 0242 266833.

LOW COST HISoft

Hisoft is reducing the prices of current versions of Devpac 1.2, BASIC version 1 and the Hisoft utilities, all for the Amstrad ST and STE. In £35.95 each, we expect to clear stocks before they release new versions of the products.

The Devpac 88000 assembly disassembler is reduced from £59.95. Version 3 of Devpac is due for release in September this year with a new editor, an improved debugger and a faster

assembler with macro switches. It will cost £69.95 and upgrades will be £34.95. BASIC Version 2 should be out soon for £79.95, with a multi-window editor, a debugger and a high-level GEM look.

A new version of HighSpeed Pascal follows hot on the heels of the original release. Version 1.13 of the compiler includes an inline 88000 assembler for incorporating assembly language and support for a 68000 maths co-processor. Details from HISoft on 0625 716185.

DOWN TO BASICS

Another version of BASIC for developing Windows applications - GFA-BASIC Windows includes everything you need to write Windows applications so you won't need the Microsoft Software Developers Kit. You can access over 500 Windows system calls and use the Clipboard, Dynamic Data Exchange between Windows applications and Dynamic Link Libraries that make code available to different programs.

GFA-BASIC Windows is syntax compatible with GFA-BASIC for MS-DOS, Amiga and ST and is £695. £290. Talk to GFA on 0734 794641.

PROTECT YOUR CODE

If you don't want other users to copy your programs or you need to put out an evaluation version that can only be used a few times, you need Ekeyev 2. The Ekeyev II plugs into the parallel port on a PC and protects any EXE or COM file. Your original code can't be disassembled either.

Get your programs protected by contacting User Friendly Microsystems on 0827 510705. ■

NOW WE ARE SIX

Microsoft has completed its rewritten version 6.0 of Macro Assembler to the point where the assembler can now invoke the linker directly, so your source files go straight into executable files. The 16-bit linker editor has been renamed by the Programmers WorkBench, an integrated environment for editing, assembling, debugging and linking that's becoming standard on Macintosh languages.

To help you through your first, potentially arduous, and the Advisor on-line help system is very welcome. As ever, getting through enormous amounts of text you can even add your own help sections to the system.

The assembler itself has two new data types, Union and TypeDef for defining your own types. Through level commands like IFDEF and GOTO, macros can be converted directly into tests on registers and the associated jump labels, which is one of the features that makes the assembler so much faster than before. The dynamic method of assembly also speeds things up.

Programmers will use some assemblers, and vice versa - unlike Macro 6 because the 16-bit MC program included converts C header files to assembler include files, so you can use position header and convert to the macros format. That's one less headache to do yourself.

The new INVOKE command makes it easier to call external procedures, whatever the high level language. Making sure that the order of parameters on the stack is correct for that language.

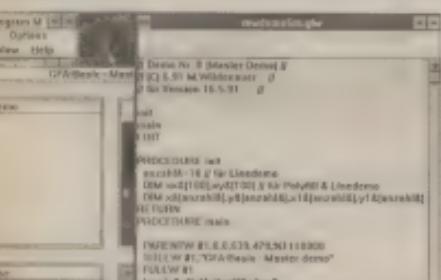
As well as tracking your code, Macro 6 makes macros compact. All the optimisations required for a DOS startup sequence is in the STARTUP command, which can run a speed-optimized ECHO command as well.

Macro 6 costs £195 from Microsoft on 0734 381233.

OVER TO YOU

Any Amiga programmer can now buy GFA-BASIC Windows, without having to pay the full price.

Many thanks to:
 System Publishers,
 New Computer Classified,
 200 Gloucester Green,
 Brixton,
 London SW9 1JW.



• GFA-BASIC for Windows has powerful graphics functions and dispenses with the need for the Microsoft Software Developers Kit. It also gives you access to over 500 Windows System calls



ALL ABOUT AMIGA GRAPHICS

Amiga Programmer's Handbook - Eugene J. Martinson - ISBN 0-89588-307-8 • Pitfalls £24.95

This is a reference manual covering the Amiga RGB kernel facilities for graphics and animation. Just opening the front cover gives you a good idea of its no-nonsense approach, loaded with credits or adverts for other books by the author, the first and last two pages of the book are crammed with an index to a selection of the functions and macros covered in the book, complete with parameters and pointers to which are macro and which return a value.

This is a reference book rather than a programming guide and you could use it with any compiled Amiga language from scratch (BASIC or C to Pascal). Because it's not language specific, there is very little code in the book. It's functional rather than illustrative, giving you programming examples for all the Amiga's display modes. If you want more code, over 20 C programs are available on a separate disk.

Each entry covers one of the functions in the five libraries

that control Amiga graphics - the Exec library, the Layers library, the Intuition library, the Ico library and, of course, the Graphics library itself.

As well as giving you the structure and explaining the syntax, there's a full discussion of how each function works and what you can do with it. If you want to see the Amiga's graphics capabilities, the Amiga Programmer's Handbook shows you everything that's on offer.

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TECH TIPS

Keith Pomfret says Kindwords can work, ties a printer ribbon round an old Amiga, links up with a computer downunder and tackles a Demori modem



Partition bugs

Could you help me with a wee problem on my? Problem one is that I am an Amiga user running an A590 hard disk and a KCS PC Power Board. The hard disk is partitioned: 160MB Amiga DOS and 10MB MS-DOS. The problem is that when I run Kindwords 2.8 it fails from disk or hard disk the Amiga returns the error: 'Disk 6 is not a DOS disk'. Is this curable?

Also, is it possible to allow an Amiga to read 50 hard so that it could accept Microsoft Code from a Telegopher? I bet you've never been asked that question before?

Joe Matting, Sutton

able to tell tell the Amiga to understand the Microsoft Code as well.

Non-DOS message

I have an Amstrad PC386 with a 50MB hard drive. Although the computer is perfectly alright and the hard drive doesn't seem to have any problems, when I CRASH/OK on the hard drive it comes up with: 'Probably Non-DOS Disk. Continue Y/N?'

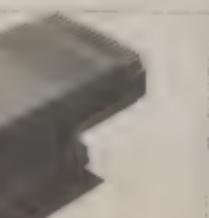
I press 'Y' it works perfectly and checks the disk, but it didn't use to do it. It has only started recently and I am concerned there is a problem with my hard disk and I wish to resolve it before something goes seriously wrong.

D. Glover, Farnham

FIRSTLY, it might be a good idea to check if your hard disk is partitioned into C: and D: drives. If the message comes up on both partitions then there could be something physically wrong with the drive and it would be worth having it checked out by a technician.

If it only comes up on one partition or there is only a C: drive then these could be some corruption on part of the drive. The fact that the command now checks the disk whenever it didn't before may mean that it has cleared up the disk itself. Keep an eye on what it does though.

Just for safety I might be worth checking the disk for errors, as this is the sort of thing they might do. This isn't just scaremongering as there is a possibility the drive could have been infected by a rogue disk. Anyway, it's always a good idea to check both floppy and hard disks for viruses on a regular basis. Virus checkers are available from most Public Domain libraries.



* Hopefully, making the Amiga recognise an IBM partition on the A590 hard drive shouldn't be an insurmountable problem

Torch lighted

I am a student doing a City & Guilds 435 Level 3 Certificate in Applications Programming in Cobol with Kalamazoo.

I have just recently bought a Torch Graduate (remember this?) model 4808/2 for my BBC. Basically it's an 8088, 256K RAM, 3 x 300K 5.25-inch Epson drives, integral PS/2 and two 8-bit IBM slots. I am running DOS 3.2 on it and it runs via the Beeb using its display and keyboard.

However, I did not receive any of the original Torch manuals nor the original software for it. Do you know anyone who uses one or a Torch user's club?

Also, what is the maximum memory I can upgrade it to? Can I directly attach an IBM 102 key XT keyboard, 5-pin din socket, to it or via some sort, as not all the keys on the Beeb act as those on an IBM?

What are its limitations? Will it run all IBM software eq. Windows, Desview, DR-DOS 5, Paperware, Corel DRAW? Can I expand it? What is extended vs expanded memory? Are there additional boards? Can I upgrade the 888 or should I get another motherboard?

I am quite fond of my Beeb and do not want to sell it. However, your suggestions/advise would be most grateful. Any help of any sort would be appreciated. Perhaps you could pass my phone number to someone reading this, help get 321-784 2405. I have tried other places, but no one will.

Waseem Haq, Bingley

AS THE TORCH GRADUATE stands 258H x 56W x 140D mm for the most basic of tasks when it came out (sometime in the mid '80s). Now, however, 840K is regarded as the minimum amount of RAM in all PCs and even this is a bit limiting. I don't know whether the Torch can be expanded any further, but I would say it probably could be, although not further than 840K.

Unless there is a 5-pin DIN socket, I doubt whether a keyboard could be automatically connected to your machine, but again, it could be possible. The problem would be getting the computer to recognise all 102 keys - if the BBC hardware can't do it itself, then an external keyboard may just replicate the Beeb's own keys and functions.

Within the Torch came out, an 8088 processor with 259K was, as I mentioned earlier, an acceptable and useable

hardware configuration. Nowadays though, an 80286 is almost regarded as the minimum set up to have.

Applications such as Windows, Desview and DR-DOS would have problems running on an 8088 processor, as it is not powerful enough to handle operating systems, for instance, that feature multi-tasking. It is possible to get Windows running on an 80286, but it really is sluggish and virtually unusable. And if you're thinking about running these with 256K then think again - 1MB is more the amount you should be looking at.

There is some hope though. You could replace the 8088 with an NEC V20 or V30 processor which would increase the speed of the 80286 from a mere 4.77MHz to a more respectable 8.0 or 9.0MHz. Then applications such as Windows would be less sluggish, but you'd still have the memory problem.

An accelerator board could be used in one of the 8-bit slots, presumably, but the cost of buying one could be almost as much as getting a separate low-end PC compatible. Then you could use the Beeb and the PC for the things that they were really made for.

As far as user groups go which might be able to help, you could try Beebugs, a BBC user group, by writing to: 117 Heathfield Road, St Albans, Herts AL1 4JS. Or if it can't help, you could try the British Association of Computer Clubs to find a club that might be able to help. It can be reached at: Steve Y. Rethorn, 14 Grove Y. Glyn, Broxbrookle Andra, Cramlington NE32 6JB. Unfortunately we have no records of a Torch user group.

Ribbons located

I am replying to your letter in issue 143 regarding the Juki 5108 Daisyphead Printer. Your reader, Mr Steven Hodgkinson has been trying to obtain ribbons for this printer.

Various makes of ribbon have been used in my printer for a number of years, but the one that seems to be around in the nearest in quantity is IBM type 129968. In fact, recently I picked up a dozen or so from a market stall for 50p each, which can't be bad.

However, there are three types in all as follows: realistic, singlestrike and correctable. The multi-strike one is the only one suitable for re-inking as the rest are a plastic type ribbon. Your reader will be able to obtain them from Unicord Companies, Manchester 061-357 3995 or

Writing Office Supplies. They are a very common ribbon and were also used in quite a few typewriters.

I am hoping that one of your readers may be able to help me out! I am trying to obtain a manual for a Juki 4100. Juki seems to have vanished completely. I have not seen any of its products for years. Has it gone bust or has it been bought? Does anyone know? Perhaps someone may have a phone number. My address is 6, Lovett House, Mile End Road, London E1 4PB.

Terry Martin, London

THANKS FOR THE TIP. Can anyone supply a manual? As for Juki, I'm not sure where it's gone.

Worldly transfers

Two problems for you and your readers.

First, how can I best get my computer and that of my brother in New Zealand to pass information to each other? We are both researching the history of our family and our separate databases are getting quite large. I have an Atari STE and he has a BBC Model B. Do you know of any programs which would enable us each to produce disks which the other's computer could read? Disk size is not a problem as we both have 525-line disk drives.

Someone has suggested that a program called *BeachOS* would enable the BBC to read from MS-DOS formatted disks and I have no problem turning my data into ASCII files and placing them on MS-DOS formatted disks. If *BeachOS* would also allow the BBC to write to MS-DOS formatted disks, then this method would be recommended and do you know where we can obtain a copy of *BeachOS*?

Secondly, why does the beautiful artwork I produce on the

Help Drive time

Would you please inform me as to whether it is possible to use either a PC double-sided disk drive or PS/2 HD disk drive (with FDDI models of course) as a second drive on my Atari STE, and also whether PC hard drives will work with it.

I am also considering the purchase of an Atari SM124 monitor, however, I am very unhappy with its apparently small size. Are there any larger alternatives at all to Atari's inadequate offering in the high resolution area? For example, can a VGA monitor (or similar) be made to work with an STE?

J. Spike, Feltham

THE STE's disk format is based on the same format of the PC so it should be possible to use either a 3.5-inch or 5.25-inch PC disk drive on an ST. The main thing is to get the details of the interface or cable from the drive as these will no doubt vary between products, and then match these up with the pins on the STE's external disk drive port. A couple of points to watch out for are whether the drives have their own power supply or not, as they may need more power than the STE can supply.

Unfortunately the PC hard drive isn't compatible with the STE so you would probably be better off selling it and using the money to buy an Atari hard drive.

SM124 monitor came out slightly staggered when I print it out (Atari Help on my 990s LC10) (that install printer option is set at 960) is there any way that I can get a more true-to-scale print-out?

Bob Holland, Cheshire

CONVERTING THE DATA TO A PC

formatted disk does seem to be the way to go. Because the databases would presumably produce files that carry headers etc, specific to the application, these would have to be converted to ASCII to be used by the application machine.

BeachOS sounds as if it could do the job but I don't know where to get a copy of it from. Perhaps you could try a BBC users group.

An alternative method of transferring the data would be for us to send each other your own computer's disks, and then you both could transfer the data across using a null-modem cable and a comms package. Or you could transfer the data to each other over the phone line using a modem, or upload it to a BBS. This would require a modem.

though the phone bill would be prohibitive, but it would be a faster way of doing things.

The printing problems could be the printer driver you are using. Start's LC10 is capable of basic Epson emulation but you could try and get hold of a driver specifically for the printer. You could also try printing out through another type of printing program or art package.

Help Modem mayhem

Some time ago I picked up a modem for the BBC Micro at a local radio and electronics rally. Unfortunately, it was without instructions or documentation of any kind.

The unit itself is a cheap-coloured plastic box, with a red front on it bearing the name DEMON (presumably the manufacturer!) along with five green LEDs and three push switches. Three cables emerge from the back, namely mains,

telephone and RS-423. The associated software came on a ROM cartridge on a Master 128.

The unit doesn't seem to get any sense out of it, or the software. Therefore, I would be extremely grateful if anybody can give me any information which may help me to get the thing working. I have already got an instruction manual for a unit such as mine, which they could let me have a photocopy of, then I would be more than willing to pay any copying/postage costs involved.

Incidentally, where I tried ringing the London phone number printed in the front of the unit, 801 901 901, got a carrier tone! Not much good without a working modem!

Gareth Hughes, Chelmsford

BECAUSE the modem has three switches along the front that may indicate if it isn't an automatic modem. Is there a socket in the back of the modem for a telephone? If there is then you might be able to plug a phone in, dial the BBS numbers on the phone itself, then press an 'on/standby' button on the modem and get a connection.

Of course, this depends on whether or not the computer and the modem are communicating to each other in the first place. When everything is connected and the software is running, do any of the LEDs flash or flicker when you press a key. If they don't then the cable may be at fault.

Other than those basic tips I can't help much further. Give *Modem Marketing* a call as it markets the Demon modem. *Modem Marketing* can be reached on 0799 470667. ■

Got those 1541 blues?

At the Express office this week we got a call from a distressed reader who couldn't get her Commodore 64's 1541 disk drive to write to any disks. It could read the disks alright, but there was no way it could format or write data to them.

To try and fix the problem the reader replaced several chips in the 1541, including the 6563 processor and the CIA chips, but to no avail. Obviously she had gone to a lot of expense to try and get things working properly, but now she's really stumped.

The only other option seems to be to see if the read/write head is out of alignment or needs cleaning. In order to align the head it would be best to take it to a technician. It is possible to do it oneself but it is quite a delicate operation. Cleaning the head involves removing the case of the drive and lightly using a deg of alcohol to remove the dust that will no doubt be there. Somehow I think the problem is more than just a dirty head but you never know.



• Got a Commodore 64 which can't read disks? Perhaps the read/write head is out of alignment or needs cleaning.

PROBLEMS?

With thanks to the technical editor, Tech Tips, Future Publishing, New Computer Express, 26, Millbank, London SW1 4SP.

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EXT 21

PRICES & SPECIFICATION SUBJECT TO CHANGE E & OE

THE PD COLUMN

James Leach powers in with a vibrant new PD Column - this week he reports on a speedy package to add up your accounts, fun games for kids, gong banking and much, much more.

Databases, accounts and some business packages are all well and good, but they can be costly. If you're looking for something to handle your matched bills, PD is a great place to start. Software PD company Amiganuts has released *Amibase Professional II*. As its name suggests, this is a powerful database capable of handling hundreds of entries and incorporates a sophisticated find system that allows you to retrieve data easily and rapidly.

The first time you use the program, you set up the fields how you want, tailoring them to your own individual length and their location until you're happy. Then single keypresses take you into the various modes, browse, add, edit, delete, find or change files.

It's possible to search for anything in any of the fields, and parts of words are recognised. For example, searching in a name file for 'car' will find everybody with a 'car' in their name, be it at the start, in the middle or at the end. The flexibility is

the great strength of Amibase and sets it apart from the simpler card-file usually seen on PD.

Its great speed is an added bonus. Amiganuts claim that Amibase isn't really intended for the first-time database user, but the documentation included is clear and easy to follow, so with a bit of experimentation, anyone should get to grips with it without too many problems. But just in case, Amiganuts also has a friendly and knowledgeable voice on this end of the telephone to help out these terminally orbit in the world of files, files and fast-finds.

PICTURES AT AN EXHIBITION

Watch wizard Pictureware has put out another selection of live images for the Amiga. It only works with HAM displays and therefore shows high quality screens with 4096 colours that will take your breath away.

Many screens have nice graphics,



* If you've got it, flaunt it with a package from Pictureware

but one of the good things about Pictureware's is that there isn't a jangle too playing, using up lots of memory and making it difficult to find sound with the pictures themselves. Half the fun of good graphics should be seeing what you can get up to with them and Pictureware's are certainly worth a peek, if only to expand the horizons of your own graphical games.

PUBLISH AND BE DAMNED

If you're a budding magazine or fanzine producer, Pegeotream have *Caroleen PD*, might be right up your street. It's a desktop publishing package which allows you to manipulate words and pictures with an impressive degree of accuracy and a fair turn of speed. It runs from the MMPS environment (that's Windows, Icons, Mouse and Pointer) so it's easy enough to get it grips with.

OTP can be a complex subject, but *PageStream* makes things as painless as possible, and in no time you'll be dropping pieces from any of the major ST or packages into your text. A variety of fonts is supplied and the shape and size of the words are easily manipulated. You can also bolden or italicise, using keyboard short-cuts.

One megabyte of RAM is recommended because the program itself takes up a lot of space, but it you

LOOK

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This program is a 'must have' if you want to ensure that your collection is protected against all the latest and most harmful Virus around today.

Mike Simpson's A-GENE. The full two disk version of this excellent program is now available only from Amiganuts. If you have tried the single disk demo versions that are available in the Public Domain and were impressed, you will want this

SEE OUR AD IN THIS WEEKS SUPPLEMENT FOR PRICE OF A-GENE AND MASTER VIRUS KILLER!

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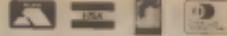
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THE EVENT HORIZON

Are you going to be there or be square? Read this page for a complete listing of the places to be, the people to meet and the things to do when you get there.

THE PLACES TO BE...

Making the Difference

Now - Tue 8 Dec
At the Science Museum, London. Info: 071-938 8080

Human Gene Mapping International Workshop - Mon 19 - Thu 22 August
At the New Cornhill Room, London. Info: 0171-2099815.

Computer Animation Competition and Exhibition - Wed 21 - Wed 28 August
At the Amiga Centre Scotland. Info: 033 557 4242

PLASA Light & Sound Show - Sun 8 - Wed 11 Sept
At Olympia, London. Info: 071-370 8174.

Leeds Computer Extravaganza - Fri 13 - Sun 15 Sept
At the New Exhibition Centre, Leeds University. Info: 0532 677 657

CPIM & MDCOS User's Group - Sat 14 Sept
At the Spring Lodge Community Centre in Whiteman. Info: 0376 517488.

Business Computing '91

Tue 17 - Fri 20 Sept
At the Earls Court Exhibition Centre, London. Info: 071-488 1981.

International Police Exhibition and Conference '91

Tue 17 - Thu 19 Sept
At London's Barbican Exhibition Centre. Info: 081-955 7700.

The Works of Charles Babbage

Thurs 19 Sept
Lecture at the King Edward VI College, Tolnes at 14.15. Info: 0800 802821.

Effective Management of Information Technology Security Conference

Mon 7 - Tue 8 Oct
At the Forte Crest Regency Park Hotel, London. Info: 071-687 1117.

Computers Count

Tue 8 - Thu 10 Oct
At Tolnes Civic Hall. Info: 0800 802821.

Business Communications Awards

Thurs 10 October
At the Savoy Hotel. Info: 0800 800 847.

Charles Babbage's Impact on Modern Computing

Wed 23 Oct
At the Science Museum, London. Info: 17.30. Info: 071-938 0196.

Image Processing '91

Tue 29 - Thu 31 Oct
At Birmingham NEC. Info: 081 686 4466.

System Builder

Wed 30 - Thu 31 Oct
At Sandown Exhibition Centre, Esher, Surrey. Info: 0822 614671.

Computer Graphics '91

Tue 5 - Thu 7 Nov
At the Alexandra Palace, London. Info: 081-958 9933.

Desktop Cad '91

Tue 5 - Thu 7 Nov
At above.

Open Systems '91

Wed 6 - Fri 8 Nov
Olympia, London. Info: 071-472200.

All Micro Show and Radio Rally

Sat 9 Nov
Birley Hall, Stafford. Info: 0732 273002.

Computers In the City

Tue 12 - Thu 14 Nov
At the Barbican Centre, London. Info: 081-898 4465.

World of Commodore Show

Fri 15 - Sat 17 Nov
A show for all things Commodore, presented by the Amiga Format team. At Earls Court, London. Info: 0462 420785.

Vision and Reality

Thurs 28 - Fri 29 Nov
A conference on multimedia at Jaarbeurs, Utrecht, the Netherlands. Info: +31 10 70 5569866. ■

What? What? What? and when again? What? Gorilla, scullduggery, and general gurumur. Read on...

So this copy is being filed in my Teacher's laptop and I am not only automatically making a great many people look to their pockets and weep. Last year's show was a huge success with visitors writhing around the block and cameras writhing out of Earls Court excited to bursting with free food and sustenance a dash.

This year looks like being a little more sour with less booze, no parties, and no Barry Gray singing his repertoire. You can almost hear the engineers of the Amiga's Fair sobbing in sympathy.

IS THIS SICK OR WHAT?

Express tracks are coming in for much the same the bellicose bangers of All For One's Fair sobbing in sympathy.

Following the SICK front cover which was so admired throughout the industry, certain synapses and R&B people took to flagging results in round the effect that hacking and tickles on this god's organ were trained chameleons and rappers.

There were even literals from the flag-losing, rotisserie, sorry, representatives of FO to kick Express off a number of rounds.

Insider thinks that this outburst of the debate is showing the FOers up. It don't even lead us to believe that they are presenting just a little bit too much for such fluffy, over-sententious

This, of course, does not apply to any that of these people anything short of clarity in their pursuit of the truth and freedom of speech.

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Golden Moments

A look back into the history of computing with Elegria. If I happened, we reported it first.

ONE YEAR AGO

• Software publisher Lotus was besieged by the League for Programming Freedom. Members of the League were protesting at Lotus' successful prosecution of competitors who had used interfaces similar to that of 3-d-in-the-box packages. The protest was for icon bugs, but the message was pretty serious - Apple is still attempting to see others off for allegedly stealing the Mac's 'look and feel'.

• Commodore announced the 6405 - the console based around its successful C64 computer. Surprisingly, not many people were willing to buy a system based on an eight-year-old computer that lacked many of its beginner's facilities. It lasted less than a year before its withdrawal.

• See with your computer will be the only alternative to the computeriser, according to a US librarian as lecturer. He predicted that in the future computers will be wired directly to pleasure centres in our brains, saying that 'the only sex organ anybody has is in the brain'. This seems less than true to us, although we are aware of those who's only brain is in their ass genitalia.

TWO YEARS AGO

• Nintendo sought an injunction against Blackadder in Newark, USA. The shop was allegedly selling cut game cartridges along with photocopies of the instructions, an activity which Nintendo was less than happy about. The problem is 't'is been solved, with many video rental stores now cashing in on the idea of hiring out games, without the permission of the game's manufacturer.

• The extent of the new-fangled crime of computer burglary was revealed by police when they showed members of the press a load of stolen hardware valued at £300,000. Print targets for the thieves were identified as schools, colleges, warehouses and offices. At the time, the police estimated that if you were to buy a second-hand computer, there was a 40 per cent chance that it would be a stolen model.

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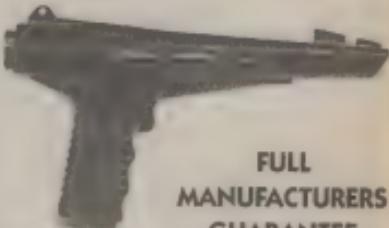
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CREATIVE ACCOUNTS

Using a low cost spreadsheet doesn't necessarily mean you are limited to basic number crunching. Dave Golder found a software package which takes data manipulation into a new dimension

PRODUCT: 3-D Calc Spreadsheet
MACHINE: 1Mb Amiga and above
FROM: Microdeal
CONTACT: 0726 68020

In principle spreadsheets are basically the same today as they were when they were first introduced, based on grids of 'cells' into which you can enter numeric data and mathematical formulas for manipulating that data (this usually involves adding up figures). A few enhancements and functions have been added, such as the capability to generate graphs and charts from the data, but the only real revolution of any sort was the introduction of the 3-D spreadsheet.

Instead of just having columns and rows on a spreadsheet, a 3-D spreadsheet introduces an element of 'depth' as if there are a number of spreadsheets all stacked up next to each other. This means that you can have a spreadsheet that can take into account these elements - age, weight and height for example - in a single cell as opposed to the usual two.

This may sound like the high-powered domain of company accountants, but Microdeal have produced a very creditable 3-D Spreadsheet for the Amiga ST which costs less than £30. Called 3-D Calc Spreadsheet, it is far from a graphical masterpiece and hardly features the most astounding range of features you are ever likely to see, but in terms of power and functionality it is more than ample for the needs of most unfussy home users or small businesses.

LOADSACELLS

The copy we reviewed was a pre-release version which was a bit buggy but still performed effectively. The main problem was that, despite what the packaging states, there was no way we could make it run in colour.

Each spreadsheet contains 3,048 rows by 256



Although it is very cheap, 3-D Calc Spreadsheet has some graphical capabilities and can produce pie, line and bar graphs

columns of cells which should be enough for most home users' needs - a season of amateur cricket scores or a year's worth of bank domestic account should fit in comfortably. And with the ability to link up to 10 spreadsheets together in a 3-D grid, there is room for an awful lot of information. 3-D Calc Spreadsheet can also hold up to three spreadsheets in its memory simultaneously.

Entering data into a cell is fairly straightforward. Each cell has a name comprising three elements. The first is the spreadsheet page number. If you are only working on a 2-D grid then this is irrelevant, but a 3-D grid will label the top spreadsheet '1', the next '1', the one after that '2' and so on, up to a maximum of value of 12. The second element is the column name, and the third is the row number. So, for example, 2B3 would be the third sheet back, the second column along, fourth cell down (the first sheets and rows are always '0').

So you enter the name of your desired cell, then type in your data, press a cursor key and they presto! Unfortunately, entering the formulas to add up a column or find the average of a row, for example, is far more complex, but more on that later.

SON OF SPREADSHEET AND ACCESSORIES

The 3-D Calc Spreadsheet comes complete with a 3.5" floppy disk containing the main program and a 1.44Mb floppy disk containing the help program disk (as covered in the main text), the Amiga disk and an accessories disk.

The Amiga disk is a cut-down version of the main program for half megabyte 512K memory Amiga 3000/2000/2500/2600 cell 3-D spreadsheet as it goes. It can also generate simple graphs showing the relationship between two sets of values. There are another 16 limitations to limit the feature.

There is a fairly complete accessories package. It is, though fairly limited, it includes a 3.5" floppy disk to hold the help files, a 1.44Mb floppy disk to hold the 3-D Calc Spreadsheet, a 3.5" floppy disk to hold the Amiga version of the program, and a 1.44Mb floppy disk to hold the accessories disk.

3-D SPREADSHEET



Producing graphs is also fairly straightforward. You have a choice of pie, line or bar graphs, and you enter the data by dragging the mouse over the relevant rows or columns. The main program can also produce line or bar graphs showing multiple ranges so that, for example, you can compare two different budget averages.

Another major benefit is that 3-D Calc Spreadsheet is compatible with other major spreadsheet, including the mighty Lotus 1-2-3 and Symphony.

This means that data from Lotus spreadsheets can be imported into 3-D Calc spreadsheets and vice versa. This is especially useful for people who use spreadsheets at work and need to take their work home.

DRAWBACKS

However, two major, and interconnected, points really let the program down. Basically, it is very difficult to learn and use unless you have had experience of spreadsheets before. The program itself is hardly user-friendly - there is not even an on-line help facility - and the manual seems to take it for granted that the user is au fait with spreadsheet concepts.

This is especially annoying if you are trying to set up your own spreadsheet when you haven't a clue how to tell a cell that it should add up all the values in row four and multiply them with the total of the values in column e. The dues are in the manual, but they are extremely difficult to find.

This is a big shame because the price of 3-D Calc Spreadsheet will be very appealing to first time users, but they may well be put off by what a difficult piece of software it is to use. ■

File Edit New Open Save Tools Help Test Home About

	1	2	3	4	5	6	7	8	9	10	11	12
1	100	100	100	100	100	100	100	100	100	100	100	100
2	200	200	200	200	200	200	200	200	200	200	200	200
3	300	300	300	300	300	300	300	300	300	300	300	300
4	400	400	400	400	400	400	400	400	400	400	400	400
5	500	500	500	500	500	500	500	500	500	500	500	500
6	600	600	600	600	600	600	600	600	600	600	600	600
7	700	700	700	700	700	700	700	700	700	700	700	700
8	800	800	800	800	800	800	800	800	800	800	800	800
9	900	900	900	900	900	900	900	900	900	900	900	900
10	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
11	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
12	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

The program can hold up to three different spreadsheets, each containing up to 6,815,744 individual cells

VERDICT BOX

FOR

- A very attractive price
- Powerful features
- Lotus 1-2-3 and Symphony compatible

AGAINST

- Difficult to learn or use

COST: £29.95
VALUE: Super

COMPETITION

No others that can offer the same functions at the same price

SOFTWARE



Games Week

TIPS! to make you the whizziest player around, NEWS! to keep you hot on the trail of what's happenin', REVIEW! of the greatest games around

STAR RATINGS

- » Total Recall
- » Terminator
- » Predator
- » Prancing Iron
- » The Jayne Mansfield Story

FALLING IN LOVE

Some of our older readers may remember the heyday of the 8-bit. Way back then, when disasters like the VIC-20, the ZX81, the Electron still walked the Earth, there was a game called *Mead Over Heels*, an isometric 3D-puzzle-arcade-adventure in the mould of the legendary Knight Lore. An absolutely wonderful piece of software, it took its game to the limits, and quickly became one of the most played games ever.

Since the rise to prominence of the 16-bit, there have been rumours of an impending conversion, but only now has it finally happened. Ocean's programmers have finally almost completed the ST and Amiga ports, and the Manchester giant is, admirably, releasing the game straight on to its



* Head Over Heels
simply one of the best games you're likely to play

£7.99 HI Squad label.

Nothing much has changed from the original versions, the graphics, sound and map layouts are all the same as before, and my sentimental old heart would like to think that *Head Over Heels* is set to enjoy a whole new lease of life, as 16-bit gamers discover what things used to be like in the days when you couldn't buy various games beneath a mountain of pretty graphics and samples in order to make them sell.

Much more than just another nostalgia trip, *Head Over Heels* is simply one of the best games you're ever likely to play. Start camping outside your favourite software shop today.

ALL TOGETHER NOW

Blimey, it must have been 10 years six weeks since Damsk released a

compilation. Surely it's time for another couple? And sure enough, a quick peek at the release schedules show that right about now you should be able to find on the shelves not one, not three, but two collections of 'classics' all bunged into one box for your composite gaming pleasure.

Grandstand is a sports set comprising *Pro Tennis Tour*, *Leaderboard* and *Continental Chess*, with Gazzza's Super *Soccer* taking the killer position. Virtual World contains three re-released Freescape games (*Dilfer*, *Total Eclipse* and *Castle Master*) along with one unreleased Freescape game, the *Castle Master*

follow-up *The Crypt*. Prices are £29.99 for the 16-bit packs and £14.99 for the 8-bit versions.

HERE IT COMES AGAIN

You know, dear hearts, I simply couldn't count the number of people who've come up to me and said, 'Stuart, I'm completely bored with playing the same games over and over again - up-light sim games week in, week out. Why can't software houses release something just a little bit different every once in a while?'

That's probably only because I can't count past five, but in any case what I always say to people like that is 'Aa, but

TOP 10 ALL FORMATS CHART

FORMAT	NAME	PROGRAM	NUMBER
1	1 Man United Europe	Krisalis	SP CD AM ST AG
2	2 Hero Quest	Grenville Graphics	SP CD AM ST AG
3	3 NE Rainbow Collection	Ocean	SP AM ST AG
4	4 Disney Collection	Code Masters	SP CD AM
5	4 Teenage Mutant Hero Turtles	Code Masters	SP CD AM ST AG
6	12 F12 Strike Eagle 2	Microprose	ST AG
7	7 Monkey Island	US Gold	ST AG
8	28 Shadow Dancer	US Gold	SP CD AM ST AG
9	10 Big Box	Beau Jolly	SP CD AM ST AG
10	18 Supremacy	Virgin	CO ST AG

£7.99 Amstrad PC + Commodore 64 + IBM PC or compatible SP + Spectrum + Commodore 64 + Amiga CD 32 + 16-bit
Chart compiled by Selby, © European Leisure Software Publishers Assoc.

TOKI

Review

AMIGA

If you're in the habit of reading *Software* now, and you do, you'll be faced with an startlingly shocking choice: with having to pay through the nose to get the newness, then take your head out of the clouds, put the cashbox in and swap boxes down and turn the car around, or, because it's all about it, you simply type in the word 'Killer' while playing the game. (Those who have had the pleasure will be you, and those who haven't, well, what's the point? To play and enjoy it, obviously.) So, does it work? What could you want? A *Popcorn* maybe? Only then, supply the ST, as far as the Amiga is concerned, it's an interesting achievement, though, if you've got many alternatives, Toki's not one of them. *Software* verdict: *Amiga* only if you're *mad*.

ST

What's *Popcorn*? You won't have heard of it, but it's a game that's been around for a while now. If you'll take a look at the intro sequence, however, you'll see that you've almost got that you're being easily swayed with a look at the title screen, and the title itself.

BEG, BORROW AND BURN

BEG

MEGA-LO-MANIA - IMAGEWORKS



"I don't think it's nice, you laughin'..."

Described by some as "Popcorn with laughs", *Mega-Lo-Mania* manages to live up to its vicious origins and the ridiculous hyphenating of its title to prove a maddeningly addictive god sim which doesn't have to take itself seriously to be a seriously great game. Extremely tough, but extremely rewarding, *Mega-Lo-Mania* finds the fine line between compulsion and frustration perfectly.

BORROW

THE SIMPSONS - OEAN

OK, so you don't actually have much option with this one, as the only other way of getting a copy is to go and fork out £40 on the

new Amiga *Cartoon Classics* pack. But if you've got a new Amiga-wielding chum, you can have some pretty excellent fun with this surprisingly good *Bart* licence. Ocean has pulled its socks up a bit after a recent poor run and produced a game which, while by no means stunning, is just a little bit more intelligent and entertaining than most of us had been expecting.



"Oh, aliens, up yours!"

BURN

METAL MUTANT! - SILMARILS PALACE

Everybody likes it, I don't care. This hideously scrolling beat-'em-up is utterly repetitive, unimaginative, incredibly shallow, unpleasant to control and generally unimpressive at best. In every area, screen after screen of the same old pawn-including baddy-thumping action sends you into a sharper giddiness than snorting Perrier, and if you're the kind of person who's likely to buy it, please stop now. Or preferably just kill yourself.

they have. Why, you only have to look at some of the great re-releases currently resting on the shelves of your local software emporium to see that it's true.

At this point they inevitably say, 'Tell me more, Stuart', which is why, to save myself some time, I've decided that this week, I'll be taking a retrospective look at some games which are just a little bit... OFF THE WALL.

TOOBIN' - Resplay - £7.99 16-bits
• The Hit Squad - £3.99 8-bits



Toobin' brings you the dubious pleasure of sailing down an alligator-infested river in an old tire inner tube with your backside hanging out of the hole in the middle. The preposterous nature of your transport makes you plough to a full of inflate-nuggety dangers, including sharp rocks and leeches in the holes, which you have to avoid by paddling away or throwing Coke cans at them.

So far so pleasantly wacky, but when you come to the pixelart it all falls apart quicker than a weekly fiddle.

Control is sluggish, imprecise and

unnatural and the different levels change only in terms of scenery. You don't really feel that you've got much influence over the wacky goings-on, despite being just one lone leetle, a pretty decent conversion of the coin-op in most respects. Toobin' was simply never much of a game in the first place.

NORTH & SOUTH - Action Station - £7.99 16-bits.

The French wagamame is a very rare breed on these shores ('What shores?' 'Oh, a triple vodka and Diamond for me, thanks,' indeed as far as I know it's a bawled with only one member).

North & South is a game set in the American Civil War and lets you control either side in an attempt to capture the whole country, by means of simplistic board-game-style combat, supplemented by optional arcade sequences.

The major selling point of the game is the beautiful, lumpy presentation, and indeed if you choose not to bother with the arcade sub-games the gameplay is very thin indeed, but still the same this is a fast-moving and entertaining game that'll bring more than the odd chuckle to the most weary of gamers' faces.

ZANY GOLF - Electronic Arts - £9.99 16-bits only

This is more like it, though. Crazy golf has always been one of the more inventive pseudo-sports around, and this computer version does a surprisingly good job of capturing the essential feel of

the real thing. In fact, stick a big fan beside you while you're playing and get a friend to check some sand in its general direction, and you'll be hard put to tell that you're not really on the miniature golf course at all.

Zany Golf also takes advantage of the medium to produce holes which would be impossible in real life yet fit perfectly with the spirit of the genuine article. Play - for up to four players - is intuitive and slick, and apart from having a few more holes than the rather limited nine supplied, you couldn't really ask for more from this game.

More enjoyable as a one-player game than most others in this list, Zany Golf nonetheless really comes into its own when you get a few pals in, and in that mode it's a classic. ■

HATSTAND CORNER

Liverpool software giants Psygnosis suffered a disappointment earlier this year when their Amiga blockbuster *Shacke Of The Beast* II was banned in 23 American states after pressure from the powerful fundamentalist lobby who demanded that it be withdrawn lest its 'satanic overtones' corrupt the nation's impressionable youth. When asked for a reaction, a Psygnosis spokesman denied the accusations vehemently, adding, 'After all, say like "dread II dog", but to no avail, and the game subsequently flopped.'

NEBULUS 2 (POGO-A-GO-GO)

21st Century Entertainment • Amiga, ST • £25.99

The original Nebulus was one of the best games ever to grace any computer. It has appeared on the Spectrum, C64, Amstrad, Amiga, ST, Game Boy and Nintendo NES, and was received everywhere with critical delight.

The simple click-and-draw nature of the令人着迷的 gameplay, coupled with the gung-ho, reason-telling, cutely characters, and lovely presentation factors ensured a monstrously addictive game which created armies of devotees. It has remained that way.

Now the resurrected Heaven label (er, I mean, the completely-new-and-not-really-connected-to-the-exterior-software-house-which-crashed-only-a-few-months-ago-with-huge-debts) 21st Century Entertainment label has come up with a sequel, and it looks so badly that I fear the success rate is the only thing preventing questions being asked in Parliament about it.

So, how have they done it? How on Earth have they managed to save such a magnificent classic into such a complete hound? At first glance, the original formula doesn't seem to have been tampered with too much, the old towers-and-platforms-and-baddies structure still seems to be intact, but with the addition of prettier graphics, new features, improved presentation and power-ups. Peer a little closer, though, and you find that the incredibly compilable gameplay of yore has been drowned under a weight of unnecessary new baddies, so that nothing of what made Nebulus so great in the first place remains.

The towers which were much of the obstacle to progress in the first game are now just somewhere to stick all the new enemies. They're miles too high, too, the essence of additiveness is the belief that the completion



of a level is just within your grasp but in Nebulus 2, you're likely to get bored before you get very excited at reaching the top of even the first tower, and you don't need me to tell you that that's not a recipe for lasting entertainment.

The new features are straight out of the *Lazy Programmer's Guide To Separate Books*, ranging from the pointlessly locked doors with the key right beside them, to the plain esp (invisible platforms which don't appear until you walk to them, leaving you to spend half the game speculatively walking into dead space and plunking back down the screen to the bits you've already passed 16 times already), to the absolutely absurd (the second level has you actually descending a tower, falling upwards when you get hit by an enemy). I mean, these people have got the faintest idea of what they're doing? They're missing the point by such a distance you have to wonder if they're actually aiming at the same target as the

rest of us.

Even the little sub-games between towers are duff, lacking in character and life, and going on for too long into the bargain. And the power-ups! The power-ups are just SO evil I can hardly bring myself to write about them without screaming. Just as an example, there are little magnets which pull you up to a higher platform, except they only work in certain places and half the time they don't work even there. Except me, I'm going to have to go for a lie down in a darkened room for a day or two...

OK, having calmed down a bit, I can tell you that Nebulus 2 is somewhat close to intolerable. If you treat it as a puzzle game rather than a Nebulus game, and though it carries none of the style, elegance, playability or craftsmanship, the presentation is quite good.

If you were a fan of the original though, this is a disgrace bordering on the blasphemous. Shut well clear.



I don't know what you're looking so happy for, pal. Nebulus 2 isn't anything to smile about, that's for damn sure as mustard.



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Notebook computers may be just as powerful as desktop machines, but how much should their added portability cost?

Tim Howell slides the Philips PCL 203 into his briefcase to find out if this new notebook offers good value for money

SMALL IS BEAUTIFUL

PRODUCT: Philips PCL 203 Notebook
COMPATIBILITY: PC
FROM: Philips
CONTACT: 081-689 2166

There is a subtle difference between laptop and notebook computers. While they are both portable machines, notebooks are smaller yet manage to have just as many features as their larger cousins. Basically, if a machine can fit inside a briefcase, it is regarded as a notebook. A laptop, on the other hand, would be carried on the user's own.

Philips' PCL 203 is an AT-compatible notebook, equipped with a 12MHz 323265 processor and 1Mb of RAM. The memory can be expanded to 8Mb on board which is quite a feat for a computer this small.

And Philips' notebook is very small. It measures only 220 by 260 by 52 millimetres, which is less than the size of an A4 page. In this space a lot of hardware has been included. To start with, there is a 5.25in 3.5in floppy drive and a 3.5in 80Mb hard drive.

Also, there are serial and parallel ports, one plug for a PS/2 mouse and an external keyboard, as well as a video port for connecting the machine to an external monitor. The serial port is only a 9-pin connector instead of the more standard 25-pin, so a different cable or an adapter will be needed to use peripherals which have a 25-pin connector. A slot can be connected to the machine to provide some XT or AT compatible slots.

ON DISPLAY

There are numerous display options as the PCL 203 has a VGA backlit liquid crystal display (LCD) screen which can not only display VGA, but also MGA, Hercules, CGA and EGA graphics. The screen gives a clear and stable display in all sorts of lighting conditions, although, like other LCD screens, the speed of some games means the display often becomes blurred.

The PCL 203's full-keyboard, scissor keyboard has 80 keys which can emulate the 101 or 102-key versions of larger desktop computers. It has an embedded numeric keypad which sits below the central part of the keyboard for numerals.

Unusually, the keyboards also controls the hardware. Other laptops and notebooks use standard knobs. By using the Fn key the keyboard can adjust the brightness and contrast of the screen, or whether the machine is outputting to its own or an external monitor. While doing these functions with a keyboard is a bit of an inconvenience, it does mean that the settings can't be changed accidentally.

BATTERY RAM

One important feature which determines the usefulness of a portable computer is how long the battery lasts. The PCL 203 can last for over three hours on its rechargeable battery which is a reasonable length of time compared to other machines. When the battery comes to the end of its charged life, the power light starts flickering and a regular beep is emitted as a warning that data should be saved.

To help conserve what power the machine does have there are a number of built-in features. If the hard drive hasn't been accessed for two minutes then it will shut itself down until it is accessed again. Also, the computer can be put in standby mode as if it isn't used for five minutes everything is shut down – the backlit screen is turned off and the two drives are put on standby until they are used again.

If you close the screen over the machine will carry it somewhere, for example, but forget to turn it off, then it will keep to remind you that it is still on. The 12MHz processor can also be slowed down to 8MHz to save battery power when processing power is not needed.

Recharging the battery back to full power takes around two hours. The device that charges the battery can also supply mains power to the notebook when it is not being used in a portable capacity.

The memory can be expanded to 8Mb on board which is quite a feat for a computer this small

Another important consideration when choosing a portable machine is how much it weighs. For its size the PCL 203 weighs quite a bit, some three kilograms. This weight will be attributed to the notebook's case which is very thick and solid. A carrying case is supplied, but apart from protecting the machine it doesn't make it any easier to carry as it has no handle.

BUNDLING ALONG

The Philips PCL 203 is bundled with a variety of software: MS-DOS version 4.01 and GW-BASIC are standard fare when it comes to bundled PC software, but Microsoft Word 2.0 and Franklin file transfer software are also included. The inclusion of Word means that the notebook can immediately be used for something useful. Word is an integrated software package which includes word processing, spreadsheet, database and communications facilities.

Software for setting up the machine is built-in. This is basically a menu screen that controls its functions.

VITAL STATISTICS

Processor	12MHz
RAM	1Mb standard, expandable to 8Mb
Storage	Single 3.5-inch, 1.4Mb floppy drive, 80Mb hard drive (30 megabyte excess free)
Video	1 Sepia, 1 Parallel, video, PS/2 mouse, external keyboard
Display	16-level VGA LCD screen (640 x 480 pixels)
Screen (in)	224 x 140mm
Weight	2.9kg
Dimensions	220 x 260 x 52mm



* A powerful package — Philips' PCL 203 Notebook can last for over three hours on its rechargeable battery

Indicating which serial ports are active, setting the clock, and determining how long the machine should wait before it shuts down. This not only makes it easy to customise the settings, but it also shows how the machine is set up, making it easier to locate problems should they occur.

MONEY MATTERS

The Philips PCL 203 retails for £1,800 which is a large sum of money. Compared to other machines on the market – both laptops and notebooks – this price puts it near the top end of the market, making it even more expensive than machines equipped with 386SX processors (such as the Neat, reviewed in Express 141). The PCL 203 is made by a company with a good reputation, but to pay such a premium for a brand name on a less powerful machine calls for some careful consideration. Individual dealers might sell the PCL 203 for less than its recommended price, but then they'd do the same for other machines.

All in all, the Philips PCL 203 is an attractive machine which offers almost all the features of a desktop machine in a package smaller than an A4 page. These come at a price, though, and potential purchasers would do well to shop around if they are interested in the machine. ■

MAKE A NOTE OF IT

FOR

- ▲ Small size
- ▲ Well-designed
- ▲ Good power-saving features
- ▲ Useful software bundled

AGAINST

- ▼ Heavy for its size
- ▼ Quite expensive compared to others

VALUE: Good **COST:** £1,600

COMPETITION: Toshiba, Neat and Sharp

COMPUTER FRAUD

OF CORPORATE

The fact that computers are now such a prevalent part of everyday commerce means that, as with any other area of life, opportunities exist for dishonest advantage. While some stories of hacking, viruses and large scale bank frauds frequently make the headlines, the true level of computer crime is difficult to gauge. Part of the problem is actually coming by the reliable statistics required to form a clear picture of the extent of abuse.

But every three years now for the past decade, The Audit Commission, an independent body formed to provide economic advice to local authorities, has conducted a survey of computer fraud across the UK.

For the purposes of ascertaining the only reliable survey of its kind, the commission defines computer fraud as any fraudulent behaviour connected with computerisation by which someone intends to gain dishonest advantage. Within this will not it attempt to catch incidents of fraud, theft, hacking and virus attacks.

By taking such a broad view, a wide sample of cases can be included because whether a computer is involved is less important than the knowledge that the computer's involvement may have introduced an additional risk of financial loss. The 1990 survey was only the fourth to be conducted in this country and the first to include virus attacks. The last one, in 1987, covered hacking for the first time.

DEFINITION OF FRAUDULENT

Because both hacking and viruses may not be fraudulent or designed to gain dishonest advantage, the current survey has had to widen its definitions. Fraud has been further defined as the unauthorised alteration of input, computer data and programs, and the destruction, suppression or misappropriation of output from a computer process (whether paper or screen based). That's incorporate the loss of data and software as well as the use of illicit copies of programs and unauthorised proxy work on company systems.

Hacking is defined as deliberately gaining unauthorised access to a computer system through the use of communication facilities and/or subverting the computer process by causing deliberate damage to the processing cycle or equipment. Viruses are simply defined as a program distributed with the intention of corrupting a computer process.

Over 1,500 private and public sector organisations respond to the call for reports of incidents of fraud and abuse, and this year a total direct loss of over £1 million was reported. But is this figure of any real consequence? After all, these days £1 million is not a lot of money and in all probability such a figure could easily be written off within the normal contingency loss

Hacking OUT, Viruses IN, ran the headline in Express' recent investigation into computer fraud and abuse. But what other facets of fraud are on the increase? Stuart Clarke investigates...

budgets of the 1,500 companies concerned. Looked at in this light, an average loss of £867 per company is, for want of a better expression, peanuts.

However, there are a couple of major points to bear in mind here. Firstly, the Audit Commission's survey does not purport to be a definitive list of UK computer fraud and abuse incidents, rather it provides an indication of the nature of the risks which organisations face when depending on computers to support their business activities.

The 1991 report showed that over a third of all frauds were committed by directors, managers and supervisors!

Another reason the figures seem to be low in comparison to similar media claims of the billions lost is fixed to the fact that the commission's survey doesn't include losses due to natural acts such as human error, accidental damage, time and floods. When asked whether such natural hazards posed a greater risk than deliberate acts such as fraud, theft, hacking and viruses, over 80 per cent replied that accidental acts posed a greater threat.

Secondly, this figure of £867 loss per company assumes an equal distribution of loss. In fact after ignoring incidents where financial losses were not reported, the average loss suffered was around £17,000.

So besides being compounded by the fact that not all cases will have been reported, some will have remained undetected, some misinterpreted as natural loss and some covered up for fear of embarrassment. All these factors tend to underestimate the scale of the problem. So perhaps the monetary value of computer crime is not the best yardstick of the problem across

such a small sample of UK companies.

If we look at the number of instances = 180 – then the figure becomes more significant. We are looking at a situation wherein one in eight companies are the victims of fraud, theft, hacking and virus attacks. Also of interest is the fact that only 23 per cent of the four types of deliberate acts of abuse (located on view brought to light through internal control procedures). The vast majority of cases were unearthing via tip-offs from outsiders and through the perpetrators confessing. In addition, viruses were found to be an increasingly prevalent form of abuse with 30 per cent of the total number of cases being attributed to viral code introduced into systems. Fifty-four virus attacks were reported, as opposed to 73 cases of fraud, 27 instances of theft and 26 of hacking.

SUFFERING THE SCAM

As might be expected, most reported instances of computer crime were found to be targeted at local government and financial institutions. In fact, half of all incidents impact in these areas. Understandably, it is these corporate victims which are most reluctant to reveal details of the fraud suffered.

Traditionally, most fraud concerned the unauthorised alteration of data prior to input into a computer along with the alteration of data once in the system. However, the most recent survey reveals that data destruction or misappropriation of hard copy (not now represented a significantly larger share. Why should this be? Ironically, one can only surmise that such a change is because of greater system safeguards.

FRAUD BEGINS AT HOME

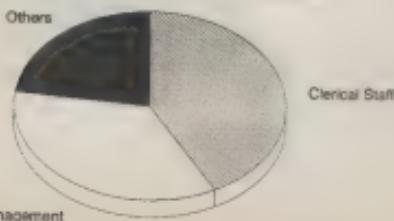
Most frauds are still being perpetrated through the submission of falsified invoices and claims along with the alteration of computerised payment data. As such, this low-level fraud is not determined by the technology and can only be termed 'computer crime' in so far as a computer figures somewhere within the fraud itself.

Fraud at the inputting stage comes into its own in cases where individuals create fictitious claimants' records and have payments made through an automated payment system direct to a bank account. Most fraud occurs in these on-line areas of computer systems where phone connections enables remote access and remote payment. Whereas 70 per cent of fraud can be accounted for in this way, less than one in five cases can be attributed to stand-alone microcomputer systems.

But guarding on-line access is the key to security. Interestingly, a third of all such cases occur in systems developed by a company's own IT department, not in systems developed by external consultants, thus underlining the fact that most fraud and abuse is instigated by a company's own employees. And indeed, it needn't be those on the lower rungs of the ladder.

The 1991 report showed that a third of all frauds were committed by directors, managers and supervisors. From the point of view of employers, the most worrying fact about all these internal control mechanisms – systems checks, passwords, logging and monitoring – were only successful in discovering less than quarter of all misuse. Discovery by accident accounted for 60 per cent of all detections, but flying in

POST HELD BY PERPETRATORS



• Thirty-five per cent of frauds were committed by managers and supervisors.

• Of those who committed fraud, 90 per cent had held their posts for two years or more.

CONFESIONS...

ANALYSIS OF INCIDENTS BY VALUE AND TYPE

	INCIDENTS					
	CASES	LOSS	CASES	LOSS	CASES	LOSS
FRAUDS	73	£1,102,542	62	£2,525,751	60	£1,131,195
THEFT	27	£1,000	22	£34,500	17	£2,301
HACKING	18	£31,500	35	£100		
VIRUSES	54	£5,000				
	180	£1,140,142	118	£2,561,351	77	£1,133,487

The face of the common myth that fraudsters get off scot-free by helping security personnel close loopholes, the survey also showed that three-quarters of miscreants are prosecuted under the Theft Act and dismissed.

THE NEW THIEF

The 1991 survey was the first to include the category of 'use of illicit software', introduced in an attempt to determine the extent of illicit copying of software. The Federation Against Software Theft (FAST) estimates that the level of loss to the software industry is currently running at around £270 million and that over half the senior managers who use microcomputers at work copy software illegally.

Over half of senior managers who use microcomputers at work copy illegal software

Of the 27 cases of theft, only seven involved the use of copied software - though given the scale of the problem as outlined by FAST plus the fact that senior managers are likely to be the persons who return the survey questionnaires, this low percentage is perhaps only to be expected.

Most theft continues to involve sensitive data which is sold to the commercial opposition. Given that copies of such data can be made easily, the extent of the

problem is difficult to ascertain. However, it seems that corporations are less likely to take tough measures against perpetrators when it comes to theft, private work on company systems and the use of illicit software. Many than half the transgressions were met with cautions or no action at all.

THE DEMISE OF HACKING?

It's too early to tell whether the introduction of the 1990 Computer Misuse Act is having any significant counter-effect on incidents of hacking, but the results of the audit commission's survey do show a downturn in hacking as the prime form of computer misuse and abuse. When respondents to the survey were asked what they ranked the relative importance of each type of deliberate computer misuse, hacking finished bottom of the list. But the downgrading of the threat of hacking could have led to a lower detection level. If managers do not feel threatened by the activity they are less likely to look out for it.

Of the few cases which were reported over half were perpetrated by persons unknown. Most hackers lasted for a period of less than five days and Payroll, Personal Accounts, and Stocktaking were the most popular targets. Ironically though, the costs of detection can outweigh the costs of the theft. One company lost £25,000 to a successful hack, but spent £23,000 detecting it.

THE GROWTH OF THE VIRUS

Viral attacks accounted for 30 per cent of the reported cases in the 1991 survey, a figure which is perhaps not so surprising given that the Audit Commission estimates there are now over 250 different varieties of computer virus at large. However, in 1990 the well-

reported AIDS virus - which asked users to send money to a Central American address in return for a password to prevent their hard disks being wiped - possibly led to an over-inflated figure. The AIDS disk was sent out to over 30,000 organisations worldwide.

Otherwise the viruses most commonly accounted were the Vienna, Jerusalem, Stoned, Italian, 4086, 1613 and Word viruses. Only 16 of the instigators of viruses into computer systems were identified and surprisingly six of these were company directors! Why management should feature so regularly in computer misuse and abuse is anyone's guess.

Whilst it is difficult to quantify the loss to business of viral activity, one company revealed that it had spent £15,000 detecting and reconstituting a system after a virus, which caused no damage or direct loss, was found to have penetrated security. It is apparent that with so many strains of viruses out there, no-one knows for sure just which variant they have detected and what, if anything, are the probable results of infection.

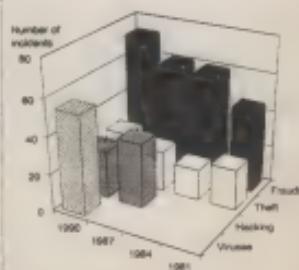
PREVENTATIVE MEASURES

The survey sought to identify the preventative steps which could and should be taken by companies to help avoid computer fraud. Given that the greatest threats to networked systems are where passwords are not being effectively used as a means of controlling access, the commission suggested four types of security measures which should be employed:

1. Continual risk analysis being conducted to identify areas most open to abuse.
2. A computer security policy which should be vigorously implemented.
3. All staff should receive computer awareness training which makes them aware of the risks and the precautions they must take.
4. An internal audit department should be set up and staff employed specifically to compile a computer security policy.

Whilst the recommendations of the 1987 report suggested that managers suffered from 'security blindness' in not appreciating the need for security measures, it is now apparent that many organisations are simply not aware of the risks that they run. ■

ANALYSIS OF REPORTED INCIDENTS



* Frauds continue to rise

* Few organisations had computer audit skills available

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